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Names At CES 2015

International

CES[®]



PLUS: We review the three latest variants of NVIDIA's newest graphics card, the GeForce GTX 960

ISSN 1675-0322



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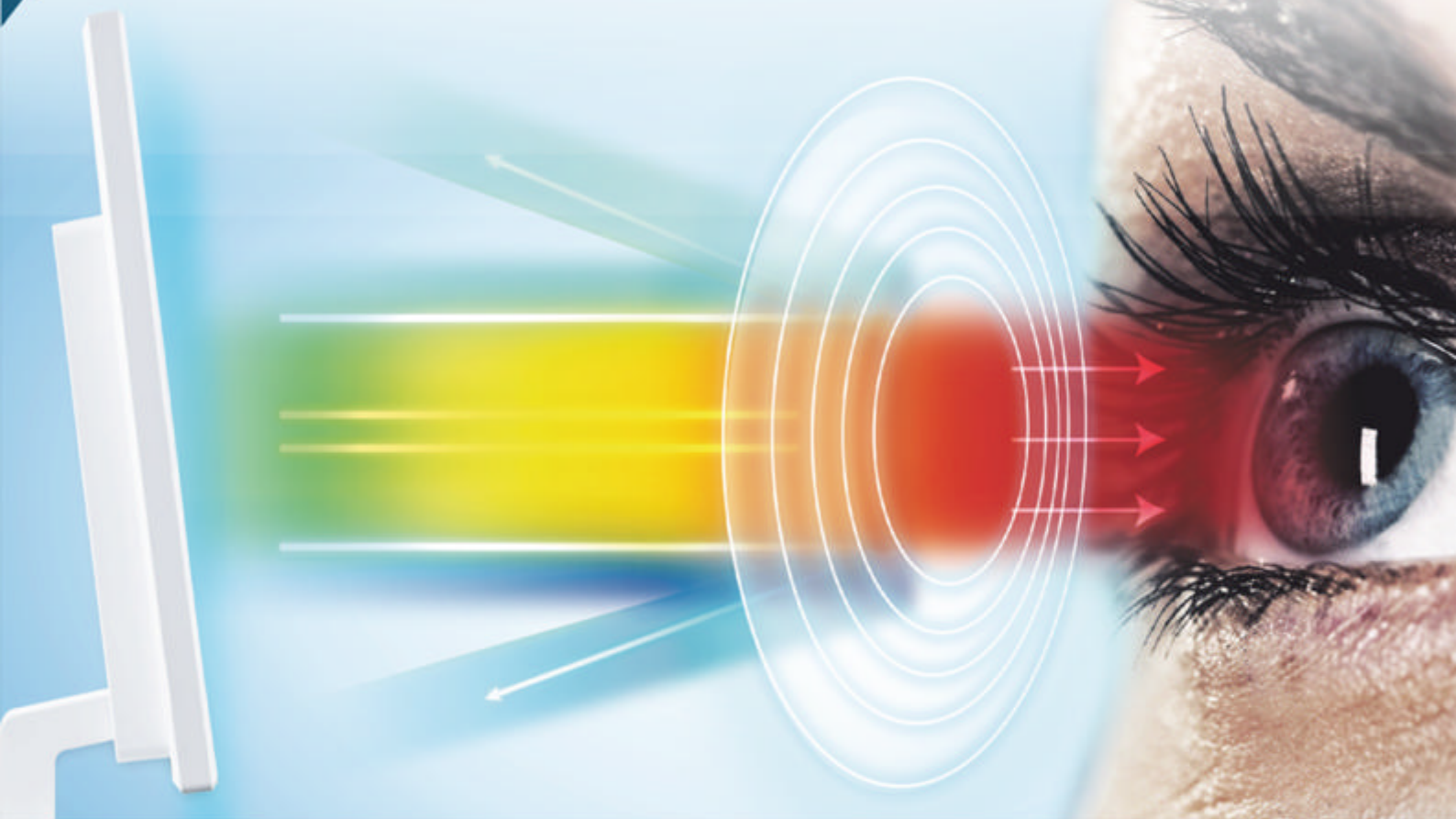
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Farewell & Thank You!

“It’s time to say goodbye, but I think goodbyes are sad and I’d much rather say hello. Hello to a new

adventure.” - Ernie Harwell, American sportscaster

Yes, it is true dear readers, that this will be my final issue with CHIP Malaysia. As always, goodbyes are tough and this was no easy decision to make but I’ve realised that after spending five great years in the industry, it is time I embarked on a new journey, however, the experience of being a writer and editor in this fast-paced (and sometimes highly stressful) line of work will always stay with me.

Truly, the experiences I’ve had and the people I’ve met over the course of my career will always be etched in my mind. If you’re a young and inexperienced individual and have a passion for tech and writing, a start in this industry will yield plenty of exciting opportunities. So if you’re unsure of where to start your career, I implore you to give tech journalism a shot.

Well, enough of that! Let’s get back to business at hand. The start of 2015 was a pretty smooth one for us and while it was pretty quiet here in Malaysia, things were heating up in Las Vegas and we have compiled some of the most interesting gadgets that debuted in the International Consumer Electronics Show this year, so don’t skip our cover story this month. On top of that, our newest member of the CHIP family, GeekMommy also highlights new gadgets that all parents should be excited for.

In the features story section, we’ve also got some very interesting articles and three insightful interviews lined up for you and some like the story about Big Data go really well with the interview with had with Xchanging Malaysia. Of course, we also have a good slew of reviews in our Test Labs.

Finally, I’d like to thank all of you, our readers for the great support you’ve given me throughout my tenure here and I apologise for any silly mistakes that have cropped up and worry not as the magazine will be in great hands.

So for the final time. Stay safe & live for the moment!

Jeremy Cheong



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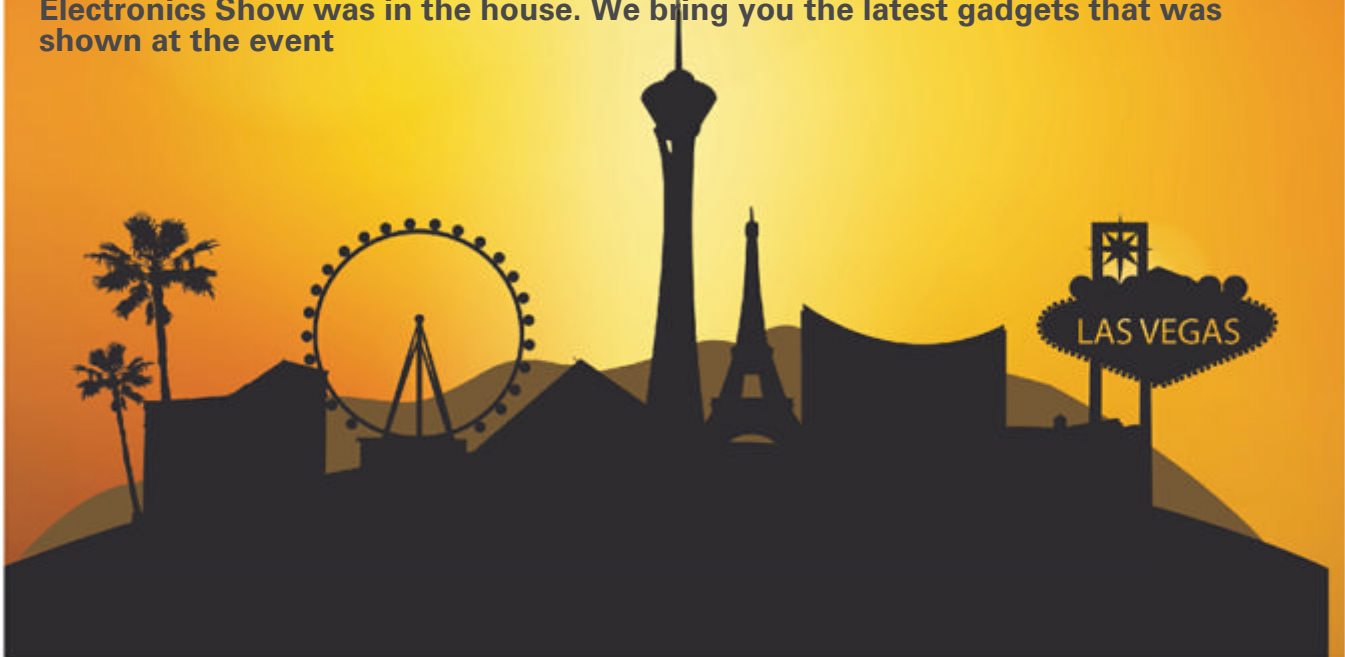
International Members of the CHIP Family



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International CES 2015

Las Vegas was even busier than usual this month as the International Consumer Electronics Show was in the house. We bring you the latest gadgets that was shown at the event



045

Are We Patching Up?

Even with the amount of patches we have for our software, hackers are still easily able to exploit loopholes in them. So where are we going wrong and will we ever get a perfect software?



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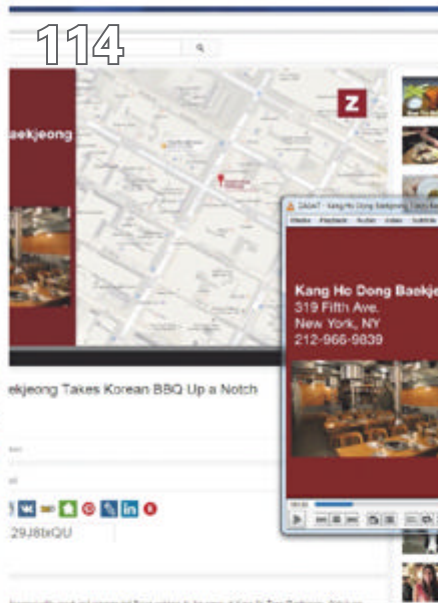
Why Big Data Matters

Big Data is slowly starting to change many aspects of our lives personally and professionally, find out how companies and organisations use it to their advantage

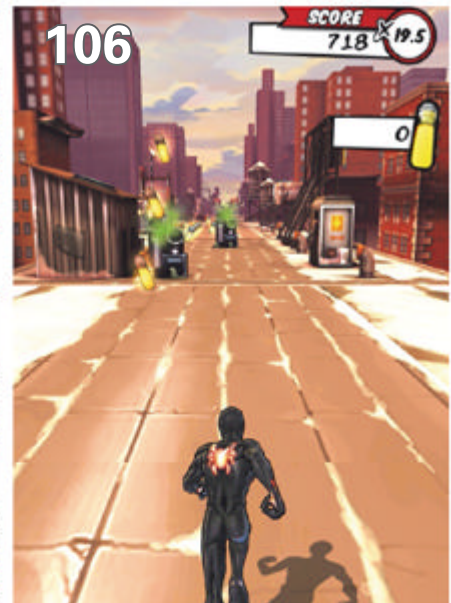




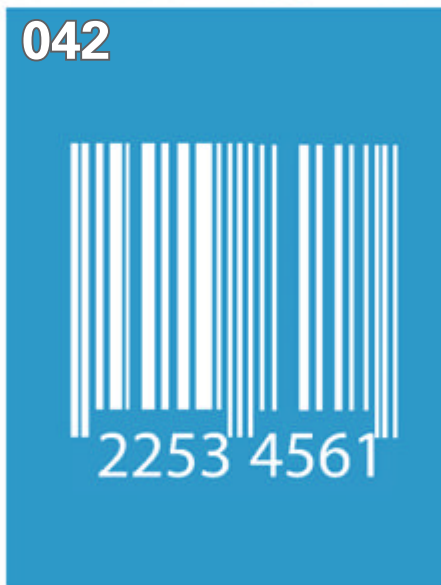
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VLC media player is now a staple in many computers and used for watching videos. We show you what else it has up its sleeves.

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Can't get enough of your favourite Marvel heroes, here are some Marvel-centric apps that are a must-have for fans

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If you're looking for an RPG that is a little different from the rest, you should find out why you should be playing Child of Light

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CHIP Downloads

We're back with our monthly dose of interesting, free and handy tools for you to enhance your PC experience. If you want to know how you can get these files, follow the instructions below:

1. Head on our website @ www.chip.com.my and right at the top, click on the "Downloads" tab
2. After that, click on the respective month's post (eg. February 2015). You will then be prompted for a password. The password can be found on this page monthly.
3. Navigate using the tabs and pick the categories you want to download the files from. Once you find the file you want, just click on it and you're good to go!

And it's as easy as that!

PASSWORD FOR FEBRUARY 2015 - accesspoint

Featured Tools

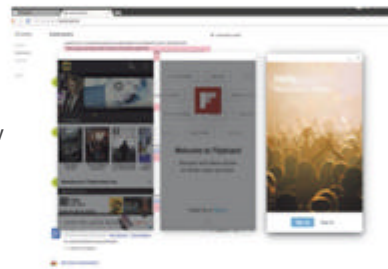
VLC Media Player

VLC Media Player is not a new software by any chance and many of you would probably already have it on your computers. But for those of you who don't this is one of the most versatile and feature packed and free media players available. Besides being able to play and render videos in virtually any format, this software can also stream from various platforms, decode various media codecs and is compatible with various interfaces.



ARChon Custom Runtime

Have you ever wanted to try running Android apps on your desktop? Well now you can with the ARChon Runtime Environment which allows you to run Android apps on Google Chrome. However, do take note that not all apps can run on this tool due to it still being in the development stage. To use the software, you would need to download the client and the apk files you want to use, then using a repackaging program; you can then convert the apk file into an installable file for Chrome.



Bing Desktop

The Bing Desktop application allows users to initiate a web search from the desktop, view news headlines as well as set your background to the Bing homepage image or choose a background from the other nine background images. Additionally, users can get additional information from weather forecast to trending news on your Facebook content.



Essentials

Our list of essentials consists of programs and software such as graphic drivers, browsers, compression software and even Cloud storage software that will improve a PC user's experience. The links on our website won't provide you with the files, instead it will lead you to the developers' official website, where you can find the right file for you.



February 2015

The Monthly Ten

Aomei Data Backupper 2.0.3

Operating System: Win XP / Vista / 7 / 8

The Aomei Data Backupper is a complete software solution that helps you to create personal backups. Here you have the option of choosing between backing up some files or the entire folder using the Backup function. This software also allows you to map entire partitions or hard disks separately.



ShareX

Operating System: Win XP / Vista / 7 / 8

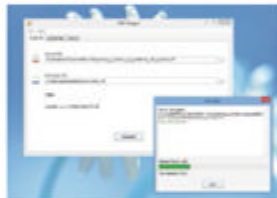
With this ShareX, not only can you take a screenshot with just a press of a button, you can also edit finished screenshots immediately with the integrated image editor and if you have installed the codec FFmpeg, you will be able to record video.



PDF Shaper

Operating System: Win XP / Vista / 7 / 8

Whether you are browsing PDF pages or want to extract a PDF file into an image, or extract photos from a Portable Document, this can all be done through the PDF Shaper instantaneously.



CHIP Updater

Operating System: Win XP / Vista / 7 / 8

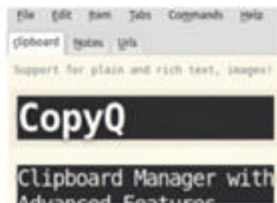
With the CHIP Updater, you can now scan installed programs and it will then inform you if there are any updates (free and paid) for it and begin the auto updating sequence. The program also displays the name of the program, developer, and size as well as the installed and latest version available.



CopyQ

Operating System: Win XP / Vista / 7 / 8

CopyQ offers users a significantly greater function scope than the traditional Windows clipboard. For example, you can permanently save and search through copied texts or images. This allows you to preserve your view and clearly work more efficiently on various projects.



Advanced Uninstaller Pro

Operating System: Win XP / Vista / 7 / 8

This software that was once paid software has recently made itself available free. This tool helps users to remove programs from their systems completely, and it does this by also going through the Windows Registry for any orphaned entries and removes them completely.

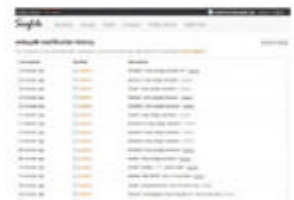
Additionally, the tools can also remove temporary Window files.



Seafile 3.1.8

Operating System: Win XP / Vista / 7 / 8

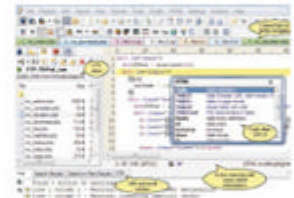
Seafile gives you an additional alternative to using cloud storage service such as Dropbox or GoogleDrive. You will receive 1GB of free cloud storage to try out software.



PSPad 4.6

Operating System: Win XP / Vista / 7 / 8

The editor known as PSPad provides support for several programming languages such as SQL, Visual Basic and C++. It also has an integrated function that allows users to record their own macros which makes it easier for repetitive sequences.



Fing 2.2

Operating System: Win XP / Vista / 7

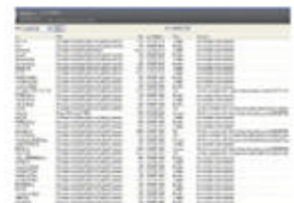
Have you ever wondered if someone is piggybacking on your network? With Fing, you can now find out whether they are on your LAN or WLAN. This tool works on the basis of command rows and with the Assistant, it displays users, MAC addresses and device names.



Piriform Recuva

Operating System: Win XP / Vista / 7 / 8

Recuva is a handy tool that allows you to recover deleted files from your PC. It can recover lost files from your computer, USB, camera or iPod. Recuva works on any rewritable media even the normally inaccessible iPod music files, can all be recovered.



Letters

Letter of the Month



Kingston DataTraveler 101 G3 16GB

Top Tips From CHIP

Dear CHIP,

I would like to praise your work on the Tips and Tricks section of the magazine as it has saved me countless times when my PC crashed or when its performance was sluggish. It was also helpful in giving me insights on certain functions of my Windows system that I would not have known before without your help, so thanks CHIP.

The Practice section also helped me get the most out of my PC so that I don't waste unnecessary cash on upgrades or repairs as I can do everything myself with the help of your tutorials.

Sandra Lim

Dear Sandra,

We are thrilled that you had enjoyed the Tips and Tricks and Practice sections of our magazine and we are also thankful for your support. One of the main goals for that section is to help our audience troubleshoot their own systems without the need of expensive IT support for small problems or issues regarding their home systems or office units.

Of course, if you have any questions that need answering with regards to our guides, please don't hesitate to write in to us so that we may help you out with any enquiry you may have about your computer

For your very encouraging letter, we have decided to award you as the winner of the Letter of the Month and that nets you a Kingston DataTraveler 101 G3 16GB flash drive.

Interesting, Informative Read

Dear CHIP,

The featured section of the magazine has always been my highlight of the magazines aside from the gadget reviews. I am extremely happy that there has been a continuous and consistent flow of feature stories which continue to pique my interest till this day.

The Tech Spelunk and review sections are also some of my favourite sections of the magazine, as I get to read about all the latest cool stuff that are out in the market right now. The Tech Spelunk section is particularly interesting because you guys go in depth in the features of a product and explain it all to us in such a way that it's easy to understand.

I do hope that CHIP Malaysia will continue to provide these interesting segments in their future issue as I sure can't wait for the next.

Guo Cheng

Dear Guo,

First of all, thank you for your continued support for our magazine and we would like to say that we are excited that you had enjoyed our Featured Section as it is filled with interesting news and unique story pieces that you do not usually read about.

We enjoy writing the reviews and Tech Spelunk section exactly for the reasons that you mentioned. It's always cool to see what makes a product tick, and the features that make it such a compelling device to use.

Lite On The Leisure

Dear CHIP,

I am a keen follower of your Lite and Leisure Section and lately, I find that the movie genres have become rather stale. As such, I would like to offer my suggestions for future issues such as choosing movies which have a balanced soundtrack that makes the movie amazing or cult favorites that's lesser known by most of the audiences. Just my two cents worth, and keep it up guys.

Pravin Gupta

Dear Pravin,

We would like to say thank you for your valuable input as well as your suggestion to our Lite and Leisure section. We will strive to spice up the Lite and Leisure section with some new elements. So stay tuned to our future issues with updated sections.

Write to us at letters@chip.com.my. Alternatively, log on to the forums at forum.chip.com.my and make yourself heard! The Letters page is an outlet for you to voice your views and opinions towards the magazine as well as general tech trends. Feedback sent to us may be edited for suitability without altering the intended point-of-view. The monthly winners for LoTM will be contacted for further details.

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(From left): Julian Thean, Manager, Product Marketing, Mobile Division; Luke Au, Product Manager, Mobile Division; Justin Joo, Business Manager, Mobile Division; Lee Jui Siang, Vice President, Mobile, IT and Digital Imaging, and Matthew Ng, Sales Director, Mobile Division from Samsung Malaysia Electronics presenting the GALAXY A5 and GALAXY A3

Samsung Brings Out A New Pair Of A's

Samsung releases two new devices mid-range devices known as the GALAXY A5 and A3

For too long have the advances of technology been regarded as too pervasive and has since met a long pause in its progression on human relationships but this will no longer be the case thanks to the recent launch of the Samsung GALAXY A-series here in Malaysia. The A-series is made up of the GALAXY A5 and A3 and they are the symbols that can unify technology and human connections.

"As more young people are getting smartphones, social network apps are booming, feeding in turn the selfie craze that has swept over the world in the past years. The GALAXY A5 and A3 jump on the selfie bandwagon and further redefine it with their signature wide selfie feature,

which complement the needs of a highly digitally connected and style conscious youth audience," said Lee Jui Siang, Vice President, Mobile IT and Digital Imaging, Samsung Malaysia Electronics."

Together with the arrival of the GALAXY A5 and A3, Samsung Malaysia Electronics was proud to present the 'Bestnya Bersama' campaign at the launch event, which speaks towards the origins of the GALAXY A5 and A3, whereby they aim to bring Malaysian youth together with a wide selfie platform in combination with music.

The new devices are Samsung's slimmest smartphones yet, whereby they measure 6.77- and 6.9mm thin respectively. Conforming to both style and portability, both these devices are able to slide into




The new Samsung GALAXY A3 is an entry level smartphone which gives users a high quality selfie experience



The larger Samsung GALAXY A5 provides slightly better specifications while giving users an efficient device to use on a day to day basis.

your pocket easily, yet still be easy to grasp in your palm.

For those looking for a selfie perfect moment, the Samsung GALAXY A5 and A3 have an advanced 5MP front-facing camera with the innovative Wide Selfie mode. Now, users can take a group picture without squeezing in to one another, while users are also able to share and send their photos or videos on a social network of their choice with a blindingly fast LTE Category 4 standard.

Besides that, both these devices retains the GALAXY tradition of featuring the Super AMOLED display and Adaptive display technology to deliver clearer images with deeper contrast and better viewing angles for a more vivid and, colourful content within any environment. The new Samsung GALAXY A5 and A3 are already available in stores nationwide. 

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Of Titans And Apaches

MSI launches two new gaming notebooks that will set Malaysian gamers' pulse racing due to their impressive hardware and features


Early in November 2014, MSI made an announcement that shook the gaming world with the release of the GT80 Titan gaming notebook. It was a real game changer as this was and still is the very first gaming notebook that is built with a mechanical keyboard. On 9 January, during the Malaysia IT Fair held in the Mid Valley Exhibition Centre, MSI officially announced that their latest gaming flagship is now available in Malaysia.

This gaming notebook is a beast and is easily one of the best desktop replacements available today. During the launch, MSI mentioned that there will be four variants of the GT80 with a choice of

different CPUs and GPUs. Out of the four variants, the highest-end setup, which costs RM16,999, is fitted with Intel's Core i7-4980HQ CPU, Dual NVIDIA GeForce GTX 980Ms, 32GB of DDR3 RAM, Super RAID 3 that is made up of a 512GB SSD and 1TB 7,200rpm HDD. Just a step down from the aforementioned powerhouse setup, is the RM13,999 variant which comes with the Intel Core i7-4720HQ CPU, dual NVIDIA GeForce GTX 980Ms, 16GB of DDR3 RAM and Super RAID 2 that uses the a 384GB SSD instead of 512GB SSD.

Besides its impressive performance package, the GT80 Titan also comes with a mechanical keyboard from MSI's long-time partner SteelSeries. For now,

this notebook is using Cherry MX Brown switches. However, MSI may add on other switches in the future. Another notable feature of the GT80 Titan is the fact that certain parts can be upgraded easily as the "Dragon" plate above the keyboard can be removed very easily giving users access to the HDD, SSD, RAM and Optical Disc Drive.

Besides the GT80 Titan, MSI also had one other "little" surprise for us as they showcased the recently announced GE62 Apache Pro, which made its debut in the Consumer Electronics Show in Las Vegas. While the GE62 Apache Pro isn't exactly a beast when compared to the GT80 Titan, it is still a very formidable gaming laptop as its hardware includes the Intel Core i7-4720HQ, NVIDIA GeForce GTX 965M or GTX 970M GPU, 8GB DDR3 RAM and 1TB 7,200rp, HDD. The GE62 Apache Pro will come in two variants, while both feature a 15.6-inch display, the one that costs RM5,499 features a UHD IPS display while the RM4,699 variant only has a Full HD IPS Anti-Glare display. 

my.msi.com



Louis Lin, MSI HQ Regional Marketing Manager (2nd from left) and Jerry Lu, MSI Malaysia Country Manager (2nd from right) posing with the company's new flagship gaming laptop, the GT80 Titan



The GT80 Titan will come in four different variants with different hardware specs, but all will feature the SteelSeries Cherry MX Brown mechanical keyboard



If the GT80 Titan is a little too large in size and also way over your budget, then the GE62 Apache Pro could be a viable alternative

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Barracuda's Security Insight For 2015

The year 2014 was filled with surprises especially in the security department, and recently Barracuda shares their findings as well as their latest innovations for the year 2015


After an eventful year that was 2014, the New Year is already upon us and Barracuda Networks has already begun their analysis of security solutions for the coming year. Barracuda Networks is an industry leading solutions designer aimed at tackling mainstream IT challenges in the most efficient and cost effective way possible. They have products that span from content security, networking and application delivery as well as data storage, protection and disaster recovery.

During the year of 2014, Barracuda made predictions and addressed them accordingly in areas such as network virtualisation growth whereby they offered integrated security, Consolidated Network, and Content Security Solution. In the public cloud sector, they expanded their security offerings to Amazon Web Services as well

as Microsoft Azure. 2014 also saw a time whereby online file sharing was embraced by corporate IT, thus allowing Barracuda to launch Barracuda Copy Site Server appliances. Barracuda also launched cloud-connected archiving and federated search for the Barracuda Message Archiver and cloud connectivity becomes an integral piece of Data Protection Plus. With the next generation SMB firewalls going to the cloud platform, Barracuda provided both Barracuda Firewall and Barracuda NG Firewall offload web filtering functionality to the Barracuda Web Security Service, to improve performance and scalability. Mobile users are not left out as Barracuda launched the Mobile Device Manager and adds features to the Barracuda SSL VPN that extends private cloud access to mobile devices and last but not least was

the integration of cloud connectivity into Barracuda Data Protection Plus and Total Threat Protection.

However, the year of 2015 sees a new threat assessment after last year's high profile threats such as Heartbleed, Shellshock, and Cryptolocker. This year, the focus is less on threats and more on threat vectors. Here is a rundown of the vector types and the threats they pose:

Analysis from 2014 will prove to be the foundation of security in 2015 according to Barracuda, as we would soon see four specific trends in 2015 such as a change in attack surfaces whereby companies are beginning to transition to the cloud to SaaS. An infrastructure upgrade would be required to guard against multiple attacks on all surfaces. All the vectors mentioned above would also see an increase in attacks especially the mobile internet platform with vulnerabilities to phishing and social engineering attacks being the main concern. There will also be a rise in web application attacks and DDoS incidents. Another repeated trend would be any increase in IT security budget will remain insufficient as administrators would have to work with more threats with less resources. 

www.barracuda.com



Thiban Darmalingam, Regional Manager for Barracuda(Malaysia) (left) and Anshuman Singh, Group Product Manager and a top in-house researcher for Barracuda Networks (Global) (right)

ASUS recommends Windows.



ASUS G551

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(From left): Grace Yang, Product Marketing Manager, BenQ Asia Pacific; Chaw Foo Hong, General Manager, BenQ Malaysia; Eason Lu, Product Marketing Manager, BenQ Asia Pacific; and JinnyBoy officiating the launch of the new BenQ home projectors

Project From Anywhere and Everywhere

BenQ's new projectors turn your living room into a home cinema

For BenQ, a new year means an excellent opportunity for the renowned provider of digital projection devices to unveil brand new products to the market. Yesterday, the company unveiled two new additions to its home video projector lineup in the form of the BenQ W1070+ and the W1080ST+.

The launch of these two new home video projectors feature cinema-grade image quality, excellent audio performance and are easy to install. Both these projectors are targeted at young parents who are looking to turn their living room space into a home cinema which can be enjoyed by the whole family.

"We foresaw a strong market demand growth for Full HD home projectors. Now,

with our worldwide market leadership in the 1080p projector segment, we aim to further fulfil that demand with new models" said Chaw Foo Hong, General Manager of BenQ Malaysia.

For the best imaging quality possible, BenQ has fitted both models with the "Cinema Colour Reality" picture performance which gives the projector the most authentic, lifelike colours, rendered by a simulated REC.709 gamut and the enhancement of the six-segment RGBRGB colour wheel and BenQ's own BrilliantColor technology, all in glorious 1080p Full HD.

On top of that, both the W1070+ and W1080ST+ supports a multitude of 3D formats, including HDMI 1.4a, 3D Blu-Ray, 3D broadcasting and NVIDIA 3DTV.



The BenQ W1080ST+ features an ultra-short throw lens, Full HD resolution and an easy to set up menu, as well as projecting a 100-inch display from 1.5 metres away



The W1070+ meanwhile offers more of the same, and is capable of projecting a 100-inch display from 2.5 metres away


Thanks to the DarkChip3 DLP Technology, the projectors can also project higher brightness and deeper black levels by filling in the area where the digital micro mirror connects to its hinge to produce film-like image quality.

Both the projectors are also short-throw projectors, with the W1080ST+ capable of projecting a 100-inch display from just 1.5 metres away. The W1070+ meanwhile is almost as impressive as it can project a similar sized display from 2.5 metres away.

Fret not if you aren't able to put the projector front and centre, as its side projection and lens shift feature means that you'll be able to adjust the keystone to create a fitting screen on your wall even if the projector is placed at the side.

For mobile-heavy users, you can also project your device's screen to the wall as the new BenQ projectors have support for Mobile High-Definition Link wired and wireless streaming feature.

Besides the awesome visual performance, BenQ hasn't forgotten about audio quality either as both the W1070+ and the W1080ST+ are equipped with a 10W resonant chamber speaker that is tuned to immerse you in your favourite movies and videos with crystal clear audio and deep bass tones.

Already available in the market, the BenQ1070+ costs RM3,999, while the W1080ST+ costs RM4,299. The lamps can also be replaced if needed, and will cost RM880 each. 

www.benq.com.my



Sumner Lemon, Country Manager for Intel Malaysia and Singapore talking about the year that was for Intel, and the company's expectations of the future

Intel On What's To Come In 2015

We find out from Intel Malaysia's Country Manager, Sumner Lemon on what's to come in 2015

For Intel, 2014 was quite an interesting year. The company, mainly known for its line of processors for desktop and notebook computers, has been working hard to diversify its product portfolio to include devices such as smartphones, smartwatches, and even stuff it calls The Internet of Things.

Intel continues to innovate in chips and processors across all mobile form factors, delivering enhanced performance, battery life and features. These include prototyping lightweight designs for a range of mobile form factors that includes PCs, laptops and tablets.

With the Intel Core M processor, the company delivered the world's first 14nm processor technology in volume

production, with the first device utilising it coming in the form of Lenovo's Yoga 3 Pro. It is expected that more such devices will be made available in the market by other OEMs sometime in the first half of 2015.

At the same time, devices powered by Intel Atom processors can be seen in devices running Android and Windows 8. Intel also announced the commercial availability of its Intel XMM 7260 LTE Advanced modem, which was first introduced in Samsung's GALAXY Alpha device. China Mobile has also certified the modem, which provides Intel with an excellent opportunity to work closer with China's largest mobile operator.

It may not seem like it, but Intel is also currently at the forefront of wearable technology, having forged



The Intel Galileo board allows manufacturers and tinkerers alike to interface a non-Internet product or solution into one that uses it

partnerships with companies such as Fossil Group, Opening Ceremony and SMS Audio LLC to develop wearable devices that run Intel's processors. It also acquired Basis, one of the best companies in the world when it comes to health-tracking devices for their excellent sensors.

Internet of Things continue to grow every year, and it is predicted that by 2020, there will be more than 30 billion connected devices. Intel joined the Open Interconnect Consortium and the Industrial Internet Consortium to advance interoperability between devices, and has also formed a series of partnerships to drive the use of connected technologies across various industries. Participating partners include Chunghwa Telecom, Ford and Mitsubishi Electric.

Speaking of the Internet of Things, Intel predicts that 2015 will see the beginning of the Era of Integration, where smart devices continue to evolve to provide users with even more immersive experiences.

These smart devices will become easier to use, and tailored to individual needs. The emergence of new form factors, including wearables will contribute to this era, as current technologies such as 3D imaging and wireless charging continue to evolve and be available for commercial use.

In terms of economics, IoT is set to grow in terms of profitability as well, as predictions forecast the IoT market to grow from US\$1.9 trillion in 2013 to US\$7.1 trillion by 2020. When implemented right, Internet of Things will enrich everyday life, improve government efficiency, transform businesses and increase overall productivity. 

www.intel.com



Ken Lee, General Manager of Fuji Xerox Printers Malaysia providing the detailed presentation for the new DocuPrint C15/225 printer series



The CM225fw printer provides users with easy to use handling and fast printing on both monochrome and colour printing



The DocuPrint M265z features a Single-Pass Duplex Automatic Document Feeder which allows users to scan and copy both sides of two-sided documents in one go

Fresh Printers From Fuji Xerox

Fuji Xerox brings in a whole new batch of printers which can print wirelessly from PC, iOS or Android devices

Fuji Xerox Asia Pacific Ptd. Ltd. recently brought forth a wide array of new printers which includes both monochrome and colour printers that feature smart technologies and provides easy connectivity to wireless and mobile devices. These new range of printers are the DocuPrint P225/265 series and the DocuPrint C115/225 series which features amazing print quality, simplicity and efficiency for both office and on the go usage.

Ken Lee, General Manager of Fuji Xerox Printers Malaysia said: "This launch sees Fuji Xerox offer a comprehensive

range of colour printers for personal and small workgroups. Perfect for people on the move, these printers deliver simple wireless connectivity and unparalleled print quality from any Apple or Android device or any PC."

The new printers provides new technology which allows easy connection via the wireless platform with iOS and Android devices. These is done through either AirPrint or Google Cloud Print Ready which support a large majority of smartphones and tablets on the market today. Additionally, users would not need to download apps or install drivers onto

mobile devices thus making these printers hassle free.

Colour printers in the DocuPrint C115/225 series use the Fuji Xerox award-winning SLED (Self-Scanning Light Emitting Diode) and DELCIS (Digitally Enhanced Lighting Control imaging System) technology to deliver the best in its grade print quality at 1,200 x 2,400 dpi. With its fast CPU and high capacity memory, the DocuPrint C115/225 performs at speeds up to 18 pages per minute on both monochrome and colour prints. As part of the effort to enhance productivity, all monochrome printers within its range features a built-in duplex printing for increased productivity and paper waste reduction.

The Docuprint M265z features an advanced 2.7-inch colour touch screen interface and Docuprint CM225fw features an advanced 4.3-inch colour touch screen interface which is fast to set up and use. All these new printer ranges are already available in stores nationwide.  www.fujixerox.com.my

Huawei Malaysia Opens Exclusive Service Centre In The Heart of KL

Customers can now get even better aftersales service from Huawei at their first service centre



(From left): Albert Goh, CEO of Zitron Enterprise; Ahmad Khalid, Director of Zitron Enterprise; Gary Xu, Country Director of Consumer Business Group, Huawei Technologies Malaysia and Mohamed Fawzi bin Ishak, Service Director, Southern Pacific Region participating in the ribbon cutting ceremony for Huawei's first Exclusive Service Center


Huawei Malaysia has launched quite a number of smartphones over the past few months, but with so many devices in the market, it is also important that there is an avenue in which customers can go to in case things go wrong. In keeping the company's promise of customer-centric service, Huawei launched its first Exclusive Service Centre on 20 January on the first floor of Plaza Berjaya.

Its main purpose is to of course provide quality aftersales service, but the Centre will also act as a channel of

direct two-way communication between customers and the brand. Huawei believes that in the long run, listening to customers' feedback and requirements will help the brand continue to enhance aspects of its value chain.

For Huawei Malaysia, aftersales is a key component of Huawei's 2015 strategy. The company will be increasing the number of Authorised Collection Points from the current 17 to 100 by the end of the year. It will provide the company a bigger capacity to address growing demands and a growing

customer base. Not only this, the company also has plans to implement door-to-door pick-up and delivery services by the end of the first quarter of 2015.


The launch of the exclusive physical service centre comes after Huawei Malaysia launched Vmall.my and four flagship stores around the Klang Valley, notably in Low Yat Plaza, Mid Valley, KLCC and Universiti Malaya. 

consumer.huawei.com/my

Cooler Master Unites Modders

Cooler Master invites modders from all around the world to showcase their expertise in the Case Modders World Series 2015

Early in the month of January, Cooler Master announced the biggest modding event of the year and they extended invitation to all modders to showcase their skills and talent in the 2015 Case Mod World Series. This prestigious modding competition is also supported by Dremel, Intel, ASUS, OCZ and GIGABYTE and there's over US\$25,000 (~RM90,000) in cash and hardware prizes up for grabs. We are also proud to announce that CHIP Malaysia is one of the official media partners for this prestigious event. So we will be bring you the latest updates regularly.

There are two categories for modders to take part in, 'Tower Mod' and 'Scratch Build'. The judging will be conducted by a panel of world renown modders that and of course the sponsors. This year, there'll also be a new award known as the 'Rising Star' which will be used to identify the future star to watch in the modding scene. Finally, there will also be a 'People's Choice' category, which is opened to public voting. 

www.coolermaster.com



DiGi Gets A Refresh

DiGi Telecommunications creates a new appearance with a different brand identity to renew their continued effort in satisfying users

DiGi Telecommunications recently refreshed its corporate brand identity, and has made a commitment to deliver excellent service, and a promise to be the enabler of digital inspiration for its customers.

The company's new corporate brand includes a newly designed logo, as well as a new tagline that reads "Let's Inspire", which builds upon DiGi's track record of established data-focused operations, to bring users faster and better internet connection.

Speaking at the launch, CEO Lars Norling said that the company today caters to a majority of internet customers with one in every two DiGi customers having

access to the internet and spending approximately three hours a day online. He explained, "The refreshed DiGi brand expresses the internet-inspired life we will enable for our customers. Our aim is to be an integral source of inspiration for customers, enabling a platform for them to connect to a melting pot of enriching content that encourages them to inspire others, and be inspired themselves. We will bring together fun and uplifting internet content to constantly deliver inspiring moments and experiences to our customers on the move."



DiGiZens giving a loud cheer as the company is rebranded

Of course, corporate rebranding is also not the only thing that DiGi has done as of late, as the company also heavily invested in other segments as well, making fundamental changes to stay ahead of the competition, and Lars Norling believes that this will be the catalyst to position the company as the leading mobile Internet provider in the country, which will put them in good stead to cater to the rising demand for high-quality Internet services.



www.digi.com.my

MYHERO Saves The Day

Community safety is further enhanced with the arrival of the MYHERO app which networks welfare, security and government agencies

Despite what we are led to believe, our neighbourhoods and communities are still not entirely free from crime. And while members of police force do come around and do patrols, it is essentially up to those around

the community to play a part in keeping the neighbourhood safe.

This is also where the app MYHERO comes in handy. This is the first Malaysian community oriented social networking platform and was launched in January. The

app is designed to connect the community via area with neighbourhood groups, workplaces, as well as welfare, security and government agencies. It is developed by local digital media powerhouse Dino Media and aims to create more awareness in safety and security with features that helps users to report and share incidents such as crime, traffic, disasters or accidents within the vicinity to alert others in the area.

Additionally, the creators of MYHERO aims to create and encourage reliable and active community groups in the app. Community leaders are screened through a list of requirements by the MYHERO team before given the permission to start a group. These registered community leaders will then be access to the admin portal to moderate posted reports, post official announcements, post events and view general analytics.

The MYHERO app beta release is available on the Google Play Store and will soon make its way to the Apple AppStore with an upcoming web version launching soon.

myhero.asia/



The MYHERO application blends in nicely with Android devices while providing an easy to use interface

Astro Enter's E-Commerce

Astro's launches GO SHOP, its first attempt in the field of e-commerce

Astro Malaysia Holdings Berhad (Astro), a leading integrated Southeast Asian consumer media entertainment group, and GS Home Shopping Inc., a leading Korean multimedia retailer, were proud to announce the launch of GO SHOP, a new 24-hour shopping service on Astro TV (Channel 118), Astro On-The-Go as well as via GO SHOP's online and mobile platforms.

GO SHOP is Astro's first foray into the e-commerce domain, enabling Malaysians to shop anytime, anywhere 24/7 via any mobile, tablet and PC of their choice. The total capitalisation of the joint venture company is RM70 million, and is estimated to generate RM500 million in annual revenue over five years.

GO SHOP will be a strong growth

catalyst for Astro in terms of future earnings growth, targeting a readily

addressable market of 4.3 million homes and 17 million consumers. E-commerce global growth trends today prove that home shopping is a fast growing retail segment, outstripping the growth of the brick and mortar retail stores. GO SHOP's multi-platform reach aims to cater to Malaysians looking for an entertaining, enjoyable and convenient shopping experience.


In turn, GS of Korea appreciates the vast business potential of the partnership and is confident that the dynamic retail environment in Malaysia will catalyse the growth of this business as Malaysia, GS



The hosts of GO SHOP with Dato' Rozalila, Dato' Rohana and Huh Tae Soo, GS Home Shopping Inc

seventh international market, will benefit from decades of managing and fine-tuning a successful and proven retail model."

Leveraging Astro's vast experience in producing entertaining shows, Malaysia's first home shopping channel is well positioned to provide an entertaining experience targeted at the key urban and market centre consumers.

Since its soft launch on 1 November 2014, GO SHOP has enjoyed huge support, with over 115,000 products ordered to date. Currently, 60 products are available, with plans to double it within a year. 

www.goshop.com.my

Samsung Teams Up With Easy Taxi

Samsung Electronics and Easy Taxi works together to bring GALAXY Life users additional value for their continued support

Samsung Malaysia Electronics started the year off with a bang as they are collaborating with Easy Taxi to offer Samsung GALAXY Life users RM20 off for their taxi fares with up to three uses.

The Samsung GALAXY Life provides its users with surprising new rewards with exclusive privileges. Samsung GALAXY Life and Easy Taxi has built a successful partnership which saw a wide number of special Easy Taxi deals being given out to GALAXY Life users. This benefit has also gone both ways, as Easy Taxi had recorded an increase in membership thus gaining more loyal customers that chose them as the preferred taxi service mobile app.

Being a mobile application, Easy Taxi finds that growing their database

through powerful social media sites to be only natural, and although the number of followers has been greatly improved since its inception in 2013, the Samsung GALAXY Life platform provided yet another crucial channel in reaching out to the masses.

Thus far, the Samsung Mobile Malaysia

Facebook page has more than 1 million "likes" and it continues to grow each day. This is all an added bonus to all Samsung GALAXY life merchants who can make use of this population base as a way to amplify and promote new deals and promotions.



www.samsung.com/my



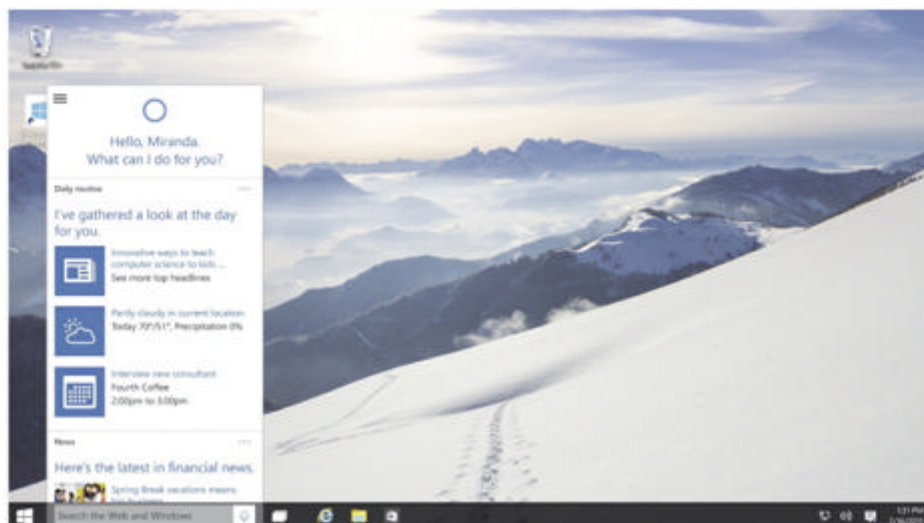
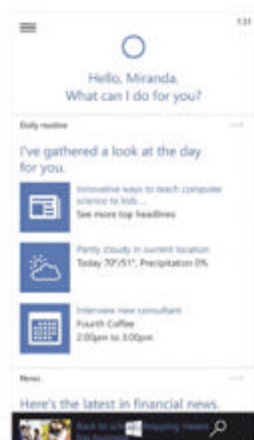


Microsoft Unveils New Features For The Upcoming Windows 10

Microsoft recently held an event for Microsoft Insiders and the media at their Redmond offices to unveil new updates and features with regards to their upcoming Windows 10 operating system. While the look and feel of Windows 10 has been public news for quite a while now, Microsoft still had a few secrets up their sleeve to share with attendees at the event.

One of the first, and quite likely the most important announcement is that Windows 10 will be a free upgrade for Windows 8.1 users for the first year that Windows 10 is launched. This is great news for consumers as those who are currently on the operating system, quite possibly because Microsoft wants as many users to migrate to Windows 10 as fast as possible.

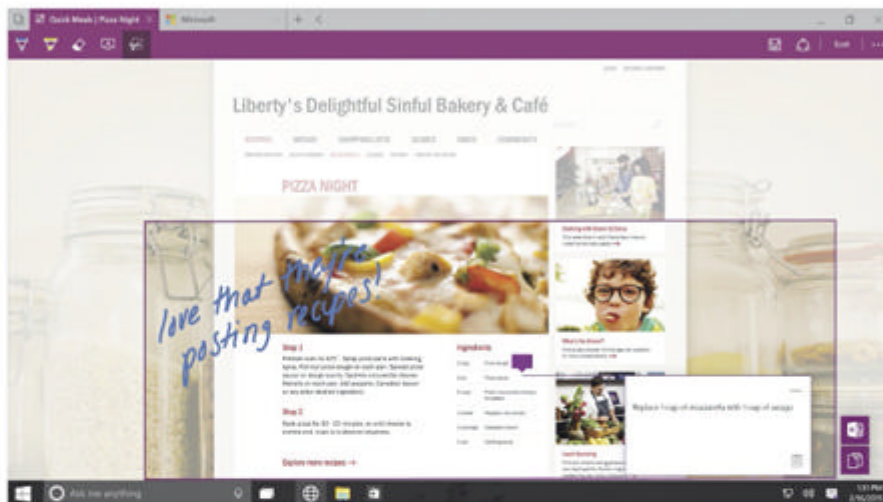
A new feature called Continuum has also been built into the operating system, and this feature is set to be important for users



Microsoft's Intelligent Personal Assistant, Cortana, will now be available across all devices and not just mobile devices



The Start bar is finally making a come back and no longer will users have to deal with the clunky MetroUI



Over the years, Internet Explorer has lost its footing to other browsers, but Microsoft hopes with the new updates, users will flock back to IE



Windows 10 will also have plenty of features focused on gaming and streaming for the Xbox to a PC will now be possible. All we need now is an official launch of the Xbox One here in Malaysia

only on Windows Phone devices to Windows 10. Microsoft's aim here is to provide users an easier way to navigate both the computer and the internet, as Cortana will be able to respond to both written and voice-based queries, and can even track and remind you of things like calendar appointments, flight details and more.

Gamers who have an Xbox One will also be happy to know that Microsoft has not forgotten about them. Streaming games from the console to any Windows 10-based PC via the Xbox app will be made possible, and you can remotely turn the console on or off in order to do this. This feature is definitely one of the most highly requested from the gaming community, and they'll be glad that it's coming when Windows 10 comes out.

All in all, Windows 10 looks to be moving forward on schedule, and it will be exciting times ahead especially given what they've introduced in the new operating system. 🇲🇾

who use Windows 10 on convertibles. Windows 10 now features both a traditional desktop mode and tablet mode, and Continuum's job is to detect when users are switching from desktop to tablet modes, and provides users with the easy task of confirming which mode they want to switch into.

For the past several years, Microsoft has also been hard at work in trying to make their operating systems seamless across multiple platforms. With Windows 10, the company appears to have struck a balance as they also announce Windows 10 for smartphones.

This version of Windows 10, presumably running on ARM-powered devices is made specifically to cater for devices under the 8-inch form factor. Microsoft has been talking a lot about unified apps for some time now, and during the event, they showed off how certain apps like Skype can work across platforms. The focus for now, it seems, is to ensure that first party apps like Office, Skype and OneDrive to work properly before tackling third party apps, but since it's still quite a while away before the operating system is out on retail, we're fairly sure the company will have enough time to iron out the kinks.

Will we be saying "good riddance" to Internet Explorer in the near future? Microsoft has also unveiled Project Spartan, which appears to be Microsoft's response to the much-maligned Internet Explorer brand. Much like its name, Project Spartan concentrates less on the interface, and more on the content.


With Project Spartan, you can doodle on web pages, take notes, crop certain sections and share them on OneNote or social media platforms, which is certainly a great feature to have built in into a browser. It also features a reading mode which streamlines the webpage to look something like text from a book, and on top of that, there's also a Pocket-like feature which allows you to save web pages for reading later on.

Microsoft is also bringing Cortana, its personal digital assistant that's originally


Chinese Phones Setting Records



Huawei and Oppo are setting new records with four new smartphones that are advertised to have unique features. The Oppo R5 is supposedly the thinnest mobile phone in the world. The 4.85mm thick device features an 8-core CPU and a 5.2-inch display with full HD resolution. The N3 meanwhile is a new entrant in the entry-level series: Similar to the N1, it features a swivelling camera, and the swivelling camera in the new model can be controlled either manually or via the display. The 13-megapixel camera is capable of taking sharp selfies, and it records videos in 4K-resolution.


It also boasts a fingerprint sensor, just like Huawei's new Phablet, the Ascend Mate 7. In terms of specifications, the Ascend Mate 7 is comparable to the iPhone 6 Plus, but it only costs about 500 euros (~RM2,050). Even though the Huawei Honor 6 is 200 euros cheaper, it features an 8-core CPU and the ability to deal with full-HD content. The real highlight is the battery, which boasts a quick-charging function and two energy-saving modes: The display can ramp down to 720p, which leads to energy savings of 20%. In the Ultra mode (which only allows the user to make and receive telephone calls), it can hold out for a period of 24 hours even if the battery's residual charge is at 10 percent. 

Pay For YouTube

The rumour that YouTube is creating a payment-based service has been going on for quite a while now, and looks set to become real. Music Key is a music streaming service that is currently occupying a space within YouTube, which, as its name implies, is dedicated to streaming music. As with YouTube, you can subscribe to channels within Music Key, and it will also provide artist recommendations as well as playlists and such. For a subscription fee of US\$9.99 (~RM36) a month, you'll also be provided with unlimited access to the Google Play Music library. Unfortunately however, this service is currently unavailable in Malaysia. 


Personal Ads Prevailing on Facebook

Facebook has revised its data protection regulations, in order to be able to use more and more personal advertisements.

The company wants to collect more data based on shared information, the Facebook sites that are visited and the apps that are used. This information will then be offered to companies in the form of a comprehensive user profiles that will make it easier for companies to select target groups for their advertisements – which means putting more money into Facebook's coffers. According to Facebook, users can deactivate the collection function, if they so desire. 

WhatsApp: Secure At Last

For quite a while now, the words "security" and WhatsApp do not really go hand in hand. However, all that is now fixed with the messaging app's latest update, which provides it with an end-to-end encryption feature. This means that the messages are encrypted at the time of sending, and are only decrypted after the receiver has received the message.

This encryption technology, stemmed from the TextSecure system provides users with the maximum level of security possible, as it is considered to be one of the most secure messaging technologies around. If you've updated your WhatsApp messaging app, this feature will have already been activated, but is currently only available on the Android platform. 

Windows 10 For All Lumias

According to an announcement that Microsoft made during their Windows 10 event, all the Windows 8 phones from the Lumia series, including the ones that were manufactured by Nokia will be upgraded to Windows 10 for free. When Windows 8 was launched, the owners of Win-7 devices were left out in the cold. The upgrade to version 10 will raise the number of accessible apps from 300,000 to 500,000. With all of the inter-operable features Windows 10 offers, it will be easier to swap between devices that run Windows 10. 🇲🇾



Introducing the Amazon Echo

Amazon's newest gadget, a small cylindrical box called the 'Echo', can be installed inside the home, and will listen to every single word that is spoken. Just like the computer in Star Trek, Echo responds to the user's commands. Once it has been installed, the Amazon Echo uses a WLAN to connect to the internet. Seven microphones filter spoken commands out of discussions or background noises (such as the noises of music or movies). Echo can also answer questions by referring to Wikipedia, the weather report and the news. It plays internet radio stations or the songs in the music library through an integrated 360-degree loudspeaker. It can also set the alarm and add items to the shopping list. The device is currently only available in the USA, where it costs about US\$200 (~RM723). 🇲🇾




Amazon Now Features 4K Videos

Amazon is taking its battle against Netflix to the next level: From 2015 onwards, 4K videos will be made available at no extra cost. Amazon is also improving its portfolio of titles featuring the respective original soundtracks. Consequently, the group of titles containing a title that has been tagged with 'OV' is no longer displayed separately. In addition to providing a better overview, this also makes it possible to change the language for a programme that is currently running. If a title contains multiple soundtracks, they are listed on the overview page, under 'Languages'.


Another new feature for Prime customers that is already in effect: Amazon's Prime Photos service has been launched in Germany. Consequently, German Prime customers will now also receive an unlimited amount of online storage space for photographs in the Amazon Cloud Drive. Items can be uploaded using the clients for Windows and Mac or the Android and iOS apps. Non-Prime customers receive at least 5GB of free storage space. 🇲🇾

Fitness Wearable Royal Rumble

Microsoft, Jawbone and Fitbit have all presented new fitness gadgets, fuelling a rapidly growing niche fitness market. The 'Microsoft Band' fitness armband uses ten integrated sensors to measure various physical values, the user's sleep cycles and the UV strain associated with the body and is compatible with all operating systems. Jawbone's UP Move meanwhile is an inexpensive entry-level model, while the UP3 is a high-end device. This year will definitely be an interesting one as we expect even more fitness trackers to be made available internationally. 



Office 365 Is Now Free For iOS Users

iOS users who want to use Office 365 now no longer have to pay for it. Microsoft is now making the productivity suite available for free. Furthermore, those who have already paid for it will get their subscription fees back. What's new about Office 365 is that the storage space associated with the OneDrive cloud service is no longer limited to 1TB. Apart from that, Dropbox has also been integrated into Office 365. The Android version makes it possible for users to use Dropbox to save, open and process files. These changes represent Microsoft's strategy for responding to the price wars that are currently taking place in the cloud computing domain. 



Google Rents NASA Spaceports

Google is expanding: It's renting the famous air force 'hangar one', which dates back to the year 1933, and was built to facilitate the construction of airships. The company has also rented a former NASA site for a period of 60 years. Google apparently plans to use the site to press ahead with research related to aeronautics, space travel and robotics. It was originally thought that Google would take over the aircraft hangars that served as settings for scenes from movies like 'Independence Day' and 'Transformers'. 




Spray Yourself Some Sleep

Have you ever had a problem with trying to get to sleep? If your answer is yes, then you should be excited to find that there is a spray that can give you the night's rest all through a few sprays.

Sprayable Sleep is exactly what it sounds like. Spray this mist on your neck a couple of times within the hour before you want to pass out and you would be dreaming about coffee, time travel and unicorns. This was created by the same team that brought us caffeine in spray form, it's already surpassed its crowdfunding goal on Indiegogo by almost 1,000 percent in less than two weeks.


Users should not worry however, as the substance is not chloroform mist but it is actually just water mixed with an amino acid called tyrosine and melatonin the hormone which regulates your bodies sleep cycle. Melatonin is the key ingredient which can also be found in pill form for the same purpose. While the pill form has consistency issues, the Sprayable Sleep team says that their deliver method could be the answer. The main reason for that is the pill form delivers higher doses of melatonin than the body needs thus being excreted from the system via the liver. With the spray, the body can absorb the required doses slowly which imitates natural secretion through the systems pineal gland.

While the spray has yet to prove its effectiveness against pills, there would be a huge influx of insomniacs which would try out these mist sprays a try, with over 2,000 funders chipping in on Indiegogo, while the campaign itself surpassed US\$153,000 (~RM553,000). There are still slots open on the website whereby the minimum is a US\$15 (~RM55) pledge which gets you a bottle with 30 uses which would be delivered to US backers by July. 

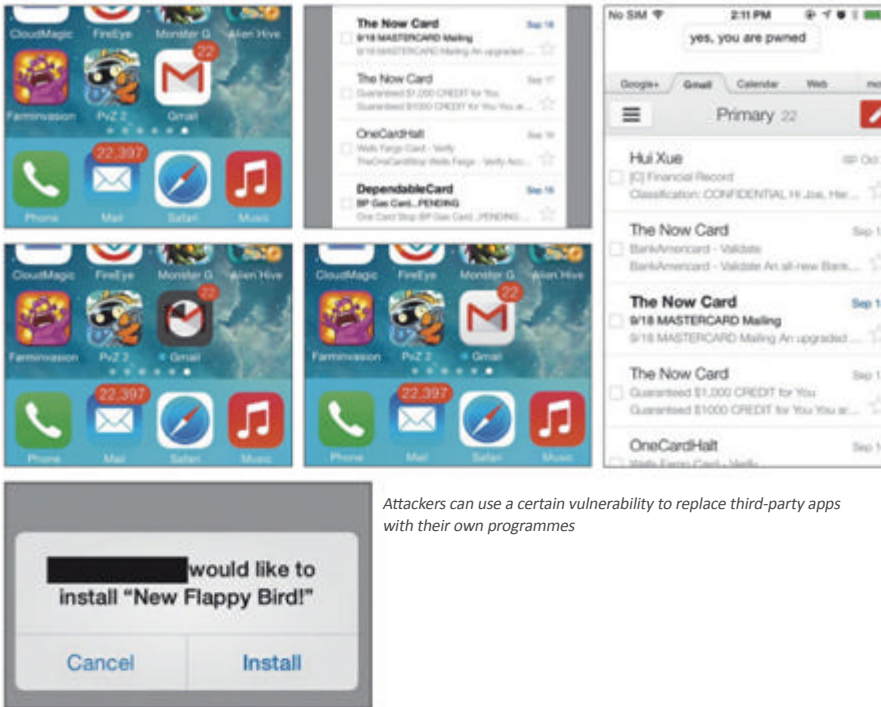


Google Now Expands With More Android Apps

Google's personal assistant the Google Now is getting beefier with the addition of up to 30 new apps which are already implemented onto your dashboard. The dashboard allows users to see sport scores, stock numbers, weather forecasts and more, and now, you would be able to see more use of the dashboard with the latest apps from Airbnb, Lyft, Pandora and more.

This was made more prevalent for users who have already installed these apps, as they become automatically available for the weeks to come during this latest software implementation. While this feature is not exactly new, it does add on to the apps helpfulness by adding, a way to find your parked car, provide calendar reminders, check TV listings and allows you to search the web. 





Attackers can use a certain vulnerability to replace third-party apps with their own programmes


iPhones Are Vulnerable

A recent backdoor that was discovered on the iPhone has shown that non-jailbreak iOS devices can be hacked too, and hackers are fully exploiting this newfound vulnerability

Security researchers at Palo Alto Networks have recently discovered a piece of iOS malware called "Wirelurker" which spreads via apps and could already have infected hundreds of thousands of users of iOS device users. This particular malware usually finds its way into a mobile device via PC. Unsuspecting users will have downloaded it, and it will remain dormant in it until an iOS device is connected.

As soon as this happens, it installs its own apps on the Apple device, which contain the malicious code. The user doesn't realise any of this, since everything happens in the background. When it comes to Wirelurker infections, it doesn't matter whether the iOS device in question has gone through a jailbreak operation. Until now, most iOS attacks were only successful against

devices that had gone through such an operation.

But this is just the tip of the iceberg: The security company FireEye has uncovered an additional threat that is much worse than Wirelurker, even though it works in pretty much the same way. The 'Masque Attack' programme uses a pop-up to lure the user into carrying out an app-update. If the user accepts the update, the programme can overwrite all the third-party apps on the device. For example, the programme could install a Gmail app that looks just like the original, but which secretly sends all the data to the attackers. In both of these cases, the only effective remedy is a bug-fix that Apple is about to publish. Until then, users should only install apps from the official App Store, and ignore third-party pop-ups that tout updates. 



Data Theft Of The Month

CURRENTC: CUSTOMER DATA STOLEN

CurrentC, a digital payment service recently suffered a hack attack in the middle of an ongoing pilot project. According to the Merchant Customer Exchange (MCX) group, the hackers stole email addresses of a number of the participants of said project. They also mentioned that no other known data was stolen, but the hackers could use these ill-gotten addresses to launch phishing attacks, and have warned users that MCX would never send an email to its customers to ask for customer data, and if found, should be deleted immediately.

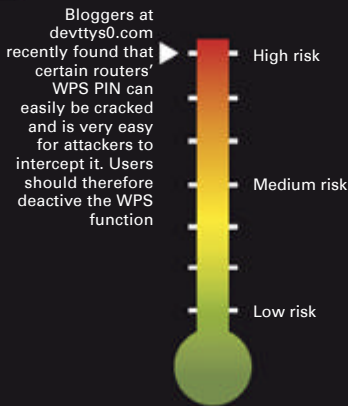
DARK HOTEL: DATA THEFT VIA HOTEL WI-FI

According to Kaspersky, hackers are now injecting data-collecting pieces of malware into the wireless LAN connections operated by hotels. These programs encourage potential victims to download "trustworthy" updates that activates a backdoor to pick data. Personal information such as social media profiles, credit card data, passwords and anything else that can be entered into a browser can and will be taken. For users, unfortunately, the only way their data can be kept secure once infected is if they are using a VPN connection, or the website has HTTPS enabled.

APPLE ICLOUD: CHINESE HACKERS FARMING LOGIN DATA

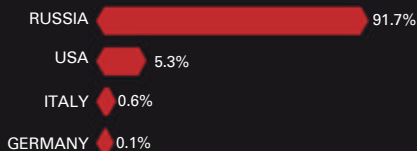
Great Fire, China's data protection organisation recently reported that there's a country-wide phishing attack for Apple's iCloud accounts. Apple has also confirmed the attack, which involves the use of insecure certificates. The company also informed users to be wary of certificate-related warnings when logging into a service using iCloud.

Danger Barometer



Mobile banking Trojans

According to Kaspersky's statistics, mobile malware that infects smartphones and picks off login data for bank accounts is primarily found in Russia



Phishing attacks are receding

According to the latest statistics released by Symantec, phishing attacks are on the decline. In September, only one out of 2,041 e-mails was a hacking-mail.



Source: Symantec

Number of the Month: US\$444,000

(~RM1.6 million) that's how much a single DDoS attack can cost a company

Many Still Careless With Their Internet Devices

A survey conducted by Kaspersky Labs and B2B International has unveiled that 32 percent of its respondents who share an internet-enabled device with friends or relatives do not take any precautions to protect their information.

The respondents say that they do not see any risks associated with sharing these devices, although it can significantly increase the chances of data that is

stored being lost or stolen. 28 percent of the respondents state that they share devices with other adults in the house, whilst five percent of them share devices with children. Leaving a shared device unprotected is extremely dangerous – nobody can be entirely sure that other users are sufficiently aware of cyber-threats: an inexperienced user may fall for a scammers' bait or download a malicious executable file.

Fortinet Launches New Industrial-Grade Devices

Fortinet recently unveiled four brand new "Rugged" products, namely networking, security and wireless devices which are purpose-built to withstand demanding standards of public utility, oil and gas, mining, manufacturing and transportation industries that operate in physically harsh environments.

These devices are the FortiGate Rugged 60D, FortiGate Rugged 90D,

FortiAP 222C and FortiSwitch 112D-PoE, and they mark an important step in the company's growing critical infrastructure presence. Fortinet's rugged and outdoor products are industrially-hardened appliances that deliver enterprise-class connectivity and security for critical control systems facing malicious attacks, as well as extreme weather and other demanding physical environments.

The Cost of Your Data

Due to the worrying rise in personal data theft, Trend Micro has created an interactive infographic microsite that shows how much a person's personal data is worth in certain regions of the world.

The site, which can be accessed at <http://bit.ly/1zeJm3W>, breaks down the cost of data, depending on what

you have given away online, including phone numbers, email addresses, social media accounts and even IP addresses. Trend Micro's website also show how much data is stolen and sold off to the black market, and which businesses were responsible for not updating their security protocols to prevent them from happening.



Khoo Hung Chuan, Country Manager for Lenovo Malaysia

Tracking The Inspirational Growth Of Lenovo

We talk to Lenovo Malaysia about the year that has been, and the year that will be By Nazrin Zain

2014 has been a pretty massive year for Lenovo, and Lenovo Malaysia in many accounts. The company, first known to have bought IBM's laptop division and turned it into a roaring success is now seen battling it out in various other segments as well, including the smartphone and tablet space, as well as the business and enterprise segment as well, as it recently bought IBM's server business as well.

We take some time off Mr. Khoo Hung Chuan, Country Manager for Lenovo Malaysia to ask him about the company's meteoric rise last year, and what we can expect from them this year.

Lenovo recently posted up excellent second quarter (2014) results, and it was revealed that the company now has the biggest PC and tablet market share in the world. What do you feel attributed strongly to this achievement?

Lenovo's Protect and Attack strategy has provided a consistent, effective, game plan execution and innovation of new products. This contributed to the strong business momentum which has resulted in our record market share, improved profitability and a more balanced business. This is our long-term and proven formula for success.

What are Lenovo's plans to stay as the number one PC and tablet maker in the world?

As innovation is in Lenovo's DNA, we



The Lenovo Yoga 3 Pro is the first notebook to feature Intel's new Core m processor in the market

will remain focused in ramping up that core part of our organization in order to keep perfecting our business. The innovation we are referring to here, does not only concern our products and technology, but also encompasses everything we do, from our strategy and execution to our business model. We are investing more than ever in innovation, so that we continue to differentiate our products and create new markets and categories to stay competitive.

What is Lenovo Malaysia's positioning here as far as PC and tablet market share is concerned?

Globally, Lenovo holds the number 1 position in the PC and Tablet market, and the commercial PC business has grown 6.5% in 2014, year-over-year. In Malaysia, we remain confident that the new products we announce will continue to give the Malaysian consumers the choice to select the products that best suit their needs, desired features and preferred price points.

Now that Lenovo has acquired both IBM's X86 business and Motorola's hardware division, does the company plan to integrate all these solutions into one big ecosystem?

The acquisition of IBM's x86 business and Motorola's hardware division is in line with Lenovo's expansion strategy to continue adding the "best of breed" partners to the ecosystem to drive planned strategies. With these recent acquisitions, we are looking to provide more integrated solutions for our customers, ranging from servers to storage to PCs and greater innovation in our mobile devices.

Just recently, Lenovo introduced the first Intel Core M-based convertible in Malaysia, will we be seeing more of such devices with a lower price point in the future?

We will continue to enhance our product portfolio by introducing new products, and offering the right features at the right price points for both our business and consumer customers. We expect

2015 to be another exciting year, and without giving anything away, Lenovo will definitely be updating everyone when we make the new announcements then!

The Lenovo Yoga 3 Pro features a brand new wristwatch hinge that can apparently be flexed up to 25,000 times, while the Lenovo Yoga Tablet 2 Pro has a built-in Pico projector. What other technologies does the Lenovo R&D department have in store that we might be able to see in future products?

Lenovo is continuously innovating across all four businesses in the PC and PC+ industry to provide our customers with products that sets the standard for quality, reliability, style and speed.

With convertibles and 2-in-1 laptop form factors gaining a lot of traction thanks to advancements in technology, do you see traditional laptop form factors being phased out sometime in the future?

We truly believe that there is definitely room for growth in the PC industry, with all the industry consolidation and innovation taking place. Lenovo will continue to protect PCs as a stronghold, while scaling innovation to attack the other markets. We have consistently focused on, and will remain locked in on the "PC Plus Evolution", where the PC will remain central to the digital lives of many users and businesses.


With the rise of competition in the PC and tablet ecosystem, what are Lenovo's plans to ensure that they remain the top brand of choice for Malaysians?

Lenovo will continue to apply the Protect and Attack strategy, where we keep on striking a balance between emerging and mature markets, between leading innovation in PCs and developing new PC Plus products; as well as balance between both the commercial and consumer customer groups, to ensure that we are a top brand of choice for Malaysians.

Lenovo Malaysia has shown a strong showing in the consumer market with its PCs and tablets, and whilst it also has solutions for the creative and engineering industries, does the company plan to engage with more studios and firms to take advantage of this growing market?

Last year, we collaborated with Camwerk Studios, a technical, creative and production studio that helps create the next generation of feature films as well as other related products, to showcase the high performance of the ThinkStation Workstation. At Lenovo, we are continuously looking to explore effective collaborations with other industries and provide them with the best technological solutions to enhance their productivity and allowing them to do more.

What new products can we expect from Lenovo Malaysia in the near future? Will Lenovo Malaysia move into new product segments and maybe bring some here to Malaysia (i.e. smart tvs).

At this moment, Lenovo has not announced any moves to move into new product segments but we will definitely continue to drive growth and innovation in the PC Plus market. Stay tuned for updates on this! 

www.lenovo.com/my/en



The Lenovo ThinkStation P300 is a beast of a workstation, and Lenovo has partnered with a number of local creative agencies to harness its capabilities



Albert Chang, Mobile Business Development Manager, Western Digital Asia Pacific

A Look Into Western Digital's Colourful Year

We take a look at how Western Digital expanded its storage portfolio in curious ways in 2014, and ask their opinions about the future of storage in the years to come By Nazrin Zain

One may say that 2014 has been a pretty colourful year for Western Digital. Throughout the 12 months, they've launched quite a number of storage devices for home users, professionals, businesses and enterprise segments alike. We talked

to Albert Chang, Mobile Business Development Manager Asia Pacific at Western Digital to ask him about the year that was, and the year that will be.

How was business in 2014 for Western Digital

as a whole? 2014 saw the company launch a variety of hard drives for different industries, ranging from end-user, creative industry, security and cloudbased storage solutions. Which of these segments contributed the most to WD's business that year?

2014 proved to be quite the challenging year for Western Digital as a whole. The company announced quite a number of hard drives for both the consumer and data centre industries, and thanks to that, business has been doing quite well for the company. Despite reports saying that the digital storage industry is seeing a decline in business, thanks to products like the WD Black and Red, consumers have great options from us when it comes to creating backup for their data.

For the industry side of things, the WD Black and our 10,000 RPM Velociraptor drives provide great stability, storage and performance when doing things like rendering graphics, working on AUTOCAD, and the list goes on.

Personal local cloud-based storage using NAS devices are also on the incline, and with our WD Red drives, both consumers and businesses can be sure that their data can be accessed anywhere at any time of the day, and maintenance is also a breeze because the actual data is residing locally.

Our WD Purple drives meanwhile caters to the growing trend in personal home security. Thanks to the storage and video technologies we have in place, these drives also store high quality recordings that are also easily accessible and consume little energy when recording.

It is often said that backing up data is an important step, especially if you're working in the creative field, especially photography. Could you elaborate on the importance of backing up data?

Discounting professionals, amateur photographers on average take up to 20GBs worth of photos every month. This sounds like a lot, but chances are they will have a PC that probably has terabytes of storage, and as time goes on, they will also realise that the photos

are quickly eating up a lot of valuable storage space.

A backup means to have two or more copies of a file at any given time, so it's always good to set up your backups to allow redundant copies of files, because one can never be too careful when it comes to backups of files.

Backing up your files immediately is also important because there can be a chance that your PC's storage drives will fail, and as a result, you will lose a lot of priceless data that can be pretty expensive to retrieve, assuming they're retrievable at all.

These days, users and businesses have the option to backup files onto both local and cloud-based storage solutions. For home users and professionals, which would be the best backup solution to go for, and why?

Using Cloud-based services like DropBox, Google Drive and Microsoft's OneDrive is great if you require the extra functionality like document editing and collaboration tools that they also offer, but if you're a small business, or just a home user who want an easily accessible, locally-stored network-accessible backup system, Western Digital has a lot of solutions available on hand.

These include products like WD My Cloud Mirror, which comes in single and dual drive bay variants, our WD Red drives in case you want to use your own NAS drive bays, and for photographers on the move, we also have the WD My Passport Wireless, which not only allows you to transfer data wirelessly to and from the drive, but also comes with an SD card slot which allows users to transfer files directly to the external without the need for a PC.

Despite having numerous backup solutions available in the market, quite a lot of users aren't open to the idea of backing up their data and information. Why is this the case?

The truth of the matter is that a lot of individuals are too lazy to create backups of their work. More often than not individuals do not respect their work, and do not understand the pain of data

loss until they themselves lose the files that they've been working on so hard. A document file may not be bigger than several hundred kilobytes, but if it is not backed up, that could easily mean hours of work that went down the drain.

This is most apparent amongst new photographers, who spend thousands of dollars on gear such as camera bodies, lenses and light, even a Macbook, but do not spend a bit more on secure backup storage devices. When the drives in their PC go kaput, that can mean several thousand photos gone in the blink of an eye.

In 2014, we saw the company take a step into the SSD space with the WD Black2 hybrid drive. Will we be seeing more similar solutions in 2015?

The WD Black2 hybrid drive is an interesting product for us, but as far as this product is concerned, it's still a work in progress, and we'll continue to improve it even more, by making it faster, and allow it to have even more storage space. Unfortunately we can't really share more at this point, but you should definitely be on the look-out for updates on this line.

WD also diversified its storage portfolio quite a bit in 2014 with NAS devices and drives that are specifically made for network/cloudbased solutions. Could you give us some insight on what to expect in 2015?

As of now, we're quite happy with the offerings that we've provided to customers, what with the RE, Red, Purple drives, and even the Velociraptor ones. At the moment, we plan to continue with this strategy in 2015, but adding more stuff like improved storage and speeds, amongst other things.

What sort of trends will the digital storage industry see in 2015? Will solutions like magnetic tape make a comeback?

Magnetic tapes have been popular way to store data in what is called in the industry as "cold storage". This is mostly due to the fact that tapes are a lot sturdier and have a longer shelf life

and are cheaper to procure as opposed to disk drives. Western Digital is actually working on new concepts to replace magnetic tapes, called AE drives. Another big trend we're quite likely to see in 2015 is the emergence of 4K media. Whilst most stations, or even online video services have yet to properly harness this new standard. Currently, these videos sit at 1GB per minute of video, which is huge, even as our hard drives are now pushing for 6.0-8.0TB per drive.

Cloud storage also looks to grow even more, as more people are rapidly gaining access to the internet, with devices starting to be able to record videos in 4K format, and will want to back up their videos to their cloud storage service of choice. These will be some of the trends that we think will be growing in 2015.

One of the biggest announcements for this year happens to be USB 3.1, what are your thoughts on this new connection standard and how do you think it'll change the market?

I believe the time is now ripe for USB 3.1 to come out, with its new format and transfer speeds. When USB was first announced all those years ago, it was seen as a revolutionary thing, as many devices can use this one single port to connect the computer, and proprietary connectors are no longer needed.

USB 3.1 provides even faster transfer speeds and such, but the architecture behind it hasn't really changed much since it was first introduced. It will take some time for the market to adapt, as it did when USB 3.0 first came out. Many PC manufacturers were still using USB 2.0 ports despite the fact that the standard was finalised and many USB 3.0 devices were made available.

As far as Western Digital is concerned, we'll wait for the market to mature before launching any new products. USB 3.1 is so new that it is currently suffering from the same legacy problems as USB 3.0, and it will take some time for the motherboard and laptop makers to come up with this particular technology on their own products. We will of course be doing a lot of R&D, and will launch new products as and when they're needed.



www.wdc.com



Murali Nadarajah, CEO of Xchanging Malaysia shared with us his thoughts on what's to come in 2015

The Time For Change Is Now

We've written countless articles on the Internet of Things, Big Data and the Cloud and the benefits they bring to businesses. But what does it bring to the Malaysian landscape? We speak to Murali Nadarajah, CEO for Xchanging Malaysia as he gives us his thoughts on what 2015 brings to Malaysia By Jeremy Cheong

There have been a lot of predictions going around saying that 2015 will be a tough year for many businesses and the economy in general. How will IT help Malaysia and companies minimise this major worry?

As we move towards 2015, it is important for businesses to think strategically on areas of improvement that can contribute to business growth against a challenging economy. Customers increasingly expect bespoke products and services that are available anywhere at anytime. The businesses that can deliver this will be the ones that will forge ahead and technology is the main lever to enable this. Business should be cognizant of upcoming technological trends, which can potentially optimise business performance:

Internet of Things (IoT)

The IoT affects everything in an organisation, from people to data to processes. Its core foundation is to enable businesses to do more than was ever previously possible and the benefits are real and numerous.

In 2015, we foresee immense potential with large organisations that have already taken on various IoT initiatives. As people, processes, data and things are integrated digitally, it requires a greater amount of operational efficiency – this is what we call the “digitisation of business.”

Digitising business allows for the migration from a hardware-based model to a service-based model with things like micro-billing, which can monetise tiny packets of service. This can be applied to big, high-value assets, such as cars and buildings, healthcare, and more. This will be even more relevant for Millennials as they expect digital offerings, which will further drive the proliferation of IoT. The

IoT model addresses three of the most important areas to enterprises: safety and security, customer relationship management and asset relationship management.

Data analytics and management

The traditional “one size fits all” approach can no longer address the unique requirements of today’s empowered and informed customers, which is leading retailers to focus more on understanding customers’ personal characteristics and shopping preferences. Big Data enables Predictive Analytics, whereby retailers can leverage data generated from social media, feedback forms and point of sale systems to extract relevant information related to customers’ preferences.

With predictive analytics, retailers are equipped with detailed, customer-specific data that allows them to personalise the shopping experience for existing loyal shoppers. Retailers can also attract new customers by closely analysing real-time customer data – obtained through sentiment analysis and understanding motivators of buyer behaviour to predict their response – to collect detailed insights on customer preferences and introduce targeted marketing campaigns by varying the look, messaging and tone for the intended customer set.

Once new customers are retained, retailers can use analytics to consistently engage with them throughout their lifecycle. This data also allows for measuring, managing and analysing a marketing campaign more efficiently.

Mobile apps and personalised service

As mobile penetration is growing rapidly in Malaysia, companies are increasingly looking to utilise apps to make ensure they stay engaged with their target market, and to be front of mind with connected shoppers. To continue capturing a consumer’s interest, personalised services such as customised welcome messages, providing product and style suggestions account balance reminders, timely information on product delivery status and special promotions to name a few, will become crucial in order to deliver a superior user experience.

As a follow up to the previous question, which new technologies do you think will be a major player to help alleviate expenditure for small-medium enterprises and even larger corporations?

Rather than only alleviate cost, Internet of Things (IoT) and Data Analytics opens up bigger business opportunities for companies by creating new revenue streams, delivering personalised service, and offering greater visibility and control in business processes such as security management.

- IoT promotes innovation and new product development, enabling businesses to move to a serviced-based proposition, generating recurring revenues and to service new markets. By providing and analysing large amounts of data about current processes, customers, products and services, the IoT enables businesses to create new and diverse revenue streams. Take a vending machine company for example, with the new data gleaned via the IoT, they could start offering an inventory management service to the companies that supply their machines with goods.

- IoT greatly increases a company's number of customer touch points, allowing businesses to strengthen their relationships with the end-user. Taking cars as an example, historically buying a new car would be the only time an automaker was able to interact with the customer. With connected cars, new applications are increasingly enabling car manufacturers to track the car's performance and engine. This valuable data allows companies to better understand their customers and to contact them should their car need to be serviced or repaired. This level of response to individual customers will create a "market of one", driving customer loyalty to new heights. Just as IoT creates more touch points with the customer, it does the same with company assets. IoT allows businesses to monitor assets' performance and output in real-time, ensuring they are performing to maximum ability. It also makes problem detection and life cycle management far more accurate.

- IoT also helps businesses keep their staff and customers safe by monitoring things like fire alarm functionality, electricity usage, heating and escape route access. Smart buildings ensure premises are both safe and compliant and can potentially limit any damage. The intel gleaned from the IoT allows businesses to take on a more proactive approach in their security efforts. Customer propositions involving a high value asset, such as a car or consumer electronic device can also be tracked and recovered if stolen, reducing costs of replacement and insurance.

What are some of the common challenges companies' face that limits them from adopting new technologies?

Challenges include limited leadership support for innovation, understanding of and the ability to implement new technologies, resistance to learn new technology and user acceptance, which may be out of their comfort zone – new technologies are often considered disruptive and costly to implement.

Another key challenge is that companies often take a device-centric approach when adopting new technologies instead of first identifying the challenges they currently face, and how new IT solutions can address those issues. Without a pragmatic and clear approach, businesses will likely face a poor return on any investments on new IT solutions.

Organisations should aim to improve profitability to make workflows more efficient. Companies should also look into having a wider understanding of the benefits of new technology, and how can it contributes to business growth before they make any investment.

For companies that are looking to bridge the IT gap, what are some of the areas they should focus on?

Across almost all business sectors there continues to be a disconnect between the IT department and business managers, which often results in missed opportunities to drive revenue, grow market share, increase speed to market and improve customer satisfaction.

To mitigate these challenges, CIOs and IT managers need to have an open discussion with a problem-solution mentality to determine a strategic direction, set objectives, and agree on how success would be measured to increase business profitability.

Both teams should work on forging closer working relationships to eliminate distrust. If a certain initiative does not seem feasible to an IT manager, there should be a clear reason why, with a solution to transform the current initiative into a success. This would also play a key role in helping teams understand the business and technology aspects on both sides of the fence for smoother discussions.

Another focus would be to engage business executives in the business strategy development process to identify IT requirements related to

business management, and in planning, implementation, and assessment of IT projects.

Also, in view of the rapid mobile penetration in South East Asia, it is crucial for companies to be aware of ongoing business and technology trends and to ensure their offerings and services are available to customers anywhere and anytime. The data transaction between multiple IT suppliers and teams should be smooth and seamless to ensure success. To keep pace with the demand, it is recommended for companies to adopt cloud technology and plan their cloud investments accordingly.

Cloud technology offers the benefits of resiliency, the ability to quickly restore servers, and back up data when disruptions occur. Cloud-based tools would also help in increasing the productivity of administrative and finance work, where updates can be seen by all parties in real time. This ensures an 'always on' service streamlines the IT processes, and allows immediate updates - all of which will help companies to enhance productivity.

When it comes to IoT and Big Data, are there any industries in Malaysia already taking advantage of it? Also, which industry do you think will benefit greatly from both?

One of the sectors that would greatly benefit from IoT and Big Data is the retail industry through predictive analysis. Predictive analysis allows companies to predict consumer behaviour and respond in real-time to consumers' individual needs, manage their back-end operations by accurately forecasting future demand, and create a real-time supply chain to engage customers more effectively. For instance, predictive analysis can tell you which of your current customers are going to leave or drop off the system, and that insight can then be provided to the appropriate department to take action and keep the customer.

Moreover, IoT speeds up the decision timeframe, and covers proposition, pricing and distribution. It also enables pricing to be adjusted to demand levels and to respond to local supply-demand shifts – such as food vendors cutting sandwich prices at the end of the day. These are all manifestations of a digital business model that uses data to make better decisions. 
www.xchanging.com



Starting And Running An E-Commerce Business



While many facets of the internet still remain free of tax (and rightly so) there are many ways a governing body can actually impose tax on to things such as e-commerce businesses

By Edwin Lee Yong Cieh

A practising lawyer specialising in telecommunications, media & technology law, Edwin is in a constant effort to educate users on the many legal happenings in the IT world

In December 2014, it was reported in the news that the Ministry of Domestic Trade, Cooperatives and Consumerism revealed that under the Consumer Protection (Electronic Trade Transactions) Regulations 2012 ("Electronic Trade Regulations"), online traders must first register themselves with the Companies Commission of Malaysia before they can start selling and trading on online marketplaces or their own e-commerce websites.

E-commerce industry is booming. The Alibaba Group, a Chinese e-commerce company founded by Jack Ma, claimed the title for the largest global Initial Public Offering (IPO) ever, when it got listed on the New York Stock Exchange in September 2014. On the date of its IPO, Alibaba's market value was measured at US\$231 billion. In this part of the world, Malaysia and Singapore generate almost half of total online retail sales in Southeast Asia, and both countries are expected to record double digit growth over the next few years.

This article is therefore intended to set out some basic legal aspects that every online trader/operator should take note of, before venturing into, or continuing with, the e-commerce

business.

The Electronic Trade Regulations apply to individuals and businesses that sell and supplies goods or services via a website or an online marketplace (e.g. an online trader), as well as online marketplace operator (e.g. an e-commerce/marketplace website operator). One of the requirements under the Electronic Trade Regulations is that, the individual or business must disclose the business name (either the name of the owner, business or company) and the registration number of the business or company, if applicable.

Furthermore, since Malaysian laws view online business as no different from physical business i.e. both are accorded with the same kind of legal treatment, it comes as no surprise that the Government now requires all online traders/operators to follow the same steps like what a physical trader/operator would take. As a matter of fact, doing business online includes many of the same business/legal risks and challenges that any brick and mortar business faces.

Registration of business

Apart from coming up with a business model that can be monetised, the first step that every online trader/operator would usually take is to register his/her business. There are several legal

structures that an online trader/operator can choose, with each of them attracting different legal implications. Examples of the legal structures are such as sole proprietorship, partnership (general or limited liability), limited company (e.g. Sdn. Bhd. or Bhd.) as well as foreign company. Issues such as transferability, management, number of members, shares ownership, constitution, capital and liability, borrowing powers, security over assets and dissolutions must be thoroughly considered and discussed before deciding which legal structure to form.

Accounting, taxes and other record-keeping requirements

An e-commerce business, like any other business, must keep and maintain accurate records of its business transactions and accounts, and make sure that the business and accounting records are completely separated from personal financial records. An online trader/business may also enter into various types of online contracts for online services that he procures in order to conduct business. Copies of these contracts must be kept for future reference.

Such records must also be kept in accordance with the minimum retention periods as prescribed by the relevant laws (for example, the Companies Act 1965, the Income Tax Act 1967 and the Goods and Services Tax Act 2014 require that certain records must be kept for at least 7 years whereas the Customs Act 1967 requires that records pertaining to importation of goods must be kept for at least 6 years), so that in the event of an audit or investigation, the online trader/operator would be able to produce the records as evidence.

Depending on the legal structure that an online trader/operator chooses, they may have to follow certain annual processes and procedures as required by law to keep the structure active and valid. For example, every limited company must file an annual return (accompanied by copies of documents, certificates, financial statements) with the Companies Commission of Malaysia within one month after the Annual General Meeting every year.

Every company must also keep at its registered office a register of its directors, managers and secretaries containing all personal particulars and information relating to shareholdings, charges, accounts, minute books, share certificates book as well as a set of company common seal. The online trader/operator must also pay taxes to the Inland Revenue Board and the Royal Malaysian Customs Department, where applicable.

Online contracts

Website terms of use and privacy policy are the two most common documents that will usually be put up on an e-commerce website. A website terms of use contain terms that essentially work as a form of contract that govern the terms under which users use the website. The terms of use should set out the responsibilities of both users and website operator; how users can use the website (including the materials on the website); the copyright ownership of the website (including the user generated contents); the liabilities disclaimer and the limited warranties/indemnities that the website operator is willing to give as well as a refund/cancellation policy (if it is an e-commerce website) or a social media and comment moderation policy (if the website allows user reviews or it hosts a blog/forum).

A privacy policy, on the other hand, sets out the manner in which the users' personal data will be collected, processed and disclosed. If website cookies are used to collect personal data, that must also be disclosed accordingly in the privacy policy. All online traders/businesses must make sure that they comply with the obligations set out under the Personal Data Protection Act 2010, if they collect and process personal data in Malaysia (regardless of whether their users are Malaysians or non-Malaysians).


The website terms of use and privacy policy are essentially online contracts that bind both the user and the trader/operator. Like any other contracts that a trader/operator would sign in the physical world, the contracts must be properly drafted and vetted. This is to make sure that the terms are consistent with applicable laws, and that the underlying processes are indeed put in place. That explains why one must not "copy and paste" the website terms of use or privacy policy found on other people's website.

The courts have long recognised clickwrap contracts if the website operator provides clear and conspicuous notice of all the terms; requires users to scroll through to the bottom of the terms and then click an "I Agree" button. Not all website terms of use are automatically enforceable just because they have been clicked accepted by the users. If the terms contain unfair or illegal terms, the court may strike down the terms in the interest of protecting the consumers' rights.

Consumer protection law, sale of goods, advertising code, trade description, misrepresentation

There are certain areas of law where the law of the country in which the consumer is located will still apply, even though the parties may have expressly agreed to a choice of governing law. For example, the Consumer Protection Act 1999 expressly states that the Act will apply even if the governing law of the contract is a foreign law. The Consumer Protection Act 1999 and the Sale of Goods Act 1957 specifically deal with defective goods or services, misleading price indications as well as sale of goods or services by description. If the goods or services are not up to the acceptable quality, the consumer has a right to reject and claim for refund.

The Trade Descriptions Act 2011 makes it an offence to apply a false or misleading statements on goods or services. A consumer who has been induced to enter a contract by virtue of a misrepresentation has the right to rescind the contract. If the website allows third party to run advertisements, the website operator should ensure that the advertisements comply with the rules on online advertisements as set out in the Malaysian Communications and Multimedia Content Code.

Last but not least, the very nature of the Internet enables the e-commerce website to be accessible by anyone from any location in the world. As the e-commerce business grows, the online trader/business should bear in mind the potential liability under the local law of all countries in which the website is accessible and he must seek to update the information (especially the legal terms) on the website from time to time. 

The view expressed in this article is intended to provide a general guide to the subject matter and does not constitute professional legal and tax advice. You are advised to seek proper legal and tax advice for your specific situation.

Tech Spelunk

MSI GT80 Titan



Computing Prowess

At the core of every electronic device, be it a computer, laptop or smartphone is its processor. The MSI GT80 Titan is powered by a choice of Intel's 4th or 5th generation of Core i7 processors, both of which provide superior processing capabilities no matter how you cut the mustard.

MSI is quite generous with memory allocation as well, as the GT80 Titan can support up to 32GB of DDR3 1,600MHz of RAM, with HDD space also coming in by the spades, enough to last digital hoarders quite a while.

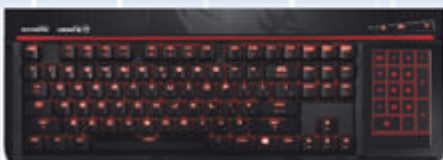


Graphics Matter

Now, the MSI GT80 Titan won't be an impressive gaming laptop if it doesn't have a powerful GPU alongside the impressive processor and RAM. MSI does not disappoint here as the company equips the laptop with an NVIDIA GTX 980M graphics card, which is one of the most powerful mobile discrete GPUs available out there in the market right now.

Not only that, if you require even more graphics power, you can opt to add in another GTX 980M in SLI configuration to create the most powerful gaming laptop

money can buy. It'll be a bit more pricey than usual, sure, but you'll be guaranteed to have the best gaming performance on a laptop, and sometimes, it's hard to put a price on things like that.



Mechanical Wonder

One of the most requested, yet unfeasible features that a lot of gamers have been asking laptop manufacturers for quite some time now is for mechanical keyboards to be

installed on gaming laptops. This has been quite difficult to implement as a lot of sacrifice has to be made in terms of budget and portability as a full-sized mechanical keyboards can be expensive, and requires quite a lot of space to implement.



Cherry, renowned maker of mechanical switches has worked with MSI and SteelSeries to implement a mechanical keyboard on the GT80 Titan, and together, they've done so with aplomb. The keys have enough travel so that they'll feel like proper mechanical keyboards as you type and game with them, and last just as long too.



Now we know what you're thinking. Another laptop? Haven't we had one too many of these over the past few months? You wouldn't be wrong for thinking so, but we feel that it would be a huge miss if we didn't showcase this mammoth of a gaming laptop. The MSI GT80 Titan was unveiled not too long ago, and it surely lives up to its name as one of the biggest gaming laptops we've seen so far, but size is not all it's got going for it as it comes equipped with brand new hardware specs and features that quite frankly no other gaming laptops have just yet By CHIP Team



Bells and Whistles

CPU and graphics performance aside, there are other features that make a great laptop.



With the GT80 Titan, these includes things like the Super RAID 3, which allows users to have up to four SSDs in a RAID 0 configuration, giving the storage drives a performance boost of up to 1,600MB/s.

Cooler Boost 3 meanwhile is MSI's own cooling system that utilises a number of fans and vents that efficiently cool the laptop without generating too much noise. A quiet gaming machine allows gamers to concentrate better to win games and achieve better scores, so this is definitely great news for gamers as well.

Not only that, MSI has also introduced a new feature called SHIFT, which allows users to switch between Sport, Comfort and Green modes, which allows the GT80 to change its performance levels based on the task at hand.

Modularity For The Win

Being able to dissect your laptop and change its parts isn't anything new. In fact, there are a lot of gaming laptops out there in the market that allow you to do just that. The only problem, however is that the process of taking apart your laptop can be quite tedious to the uninitiated, and borderline frustrating sometimes, even for the most seasoned of modders.

Above the keyboard is a panel with a Dragon motif that allows users to easily access certain key components, such as the optical disk drive, the M.2 SSD and RAM without having to unscrew the entire notebook to swap the parts out.





237 million

iPads have been sold by Apple since their introduction in 2010. The effects of such a huge sale are visible primarily in the PC market

1980 1981 1982 1983 1984 1985 1986 1987 1988 1989

GRiDPad

Launch of sales: October 1989

Price: US\$2,370 (~RM8,606)

Hardware: 10MHz CPU, 1MB RAM

Display: 10-inch LCD

Operating system: MS DOS 3.3

CHIP TIMELINE

Tablets

In 2010, Apple introduced the iPad and created a new market out of nothing. But the story actually started much earlier than that

At the D5 conference in 2007, Bill Gates and Steve Jobs participated in a joint discussion. When the discussion turned to talks about the future five years down the road, Gates started raving about tablets. Jobs spoke about “Post PC Devices” and very cleverly avoided speaking about tablets. That moment is fascinating, especially in

hindsight – because three years later, Apple took a significant step in the direction of tablets – a step that Microsoft had been striving to take, but has been in vain. The company launched the MS Tablet PC platform in 2001. The following year, third party providers released the first tablets, out of which convertibles became very popular but couldn’t achieve significant

market penetration – tablets remained niche products. Failures such as Microsoft’s project have characterised the history of tablets, which also happens to be the history of Pen Computing as well. The first attempts at these computer systems, which are operated using a pen, were made as early as 1915, when Hyman Eli Goldberg took out a patent on a device that was

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**1993****Apple Newton**

Apple launches the MessagePad – the first Newton. This device was a flop.

**2001****Microsoft Tablet PC**

Microsoft introduces the specifications for tablet PCs. The first convertibles make their appearance in the following year

**2010****Apple iPad**

On 27 January, Steve Jobs introduces the first iPad and turns the tablet market upside down

1990 1991 1992 1993 1994 1995 1996 1997 1998 1999 2000 2001 2002 2003 2004 2005 2006 2007 2008 2009 2010 2011 2012 2013 2014

**1996****PalmPilot**

Palm's first PDA (Palm OS) appears and achieves a considerable amount of success

**2007****D5 conference**

Bill Gates raves about a future with tablets. Jobs will transform the vision into reality in a few years

2012**Microsoft Surface**

Microsoft counter attacks with the Surface and bases a complete operating system on touch operation



supposed to facilitate automatic recognition of handwriting. The Stylator made an appearance in 1957; it was the first practical implementation of this system. Thereafter however, no new device was launched for quite some time. For a long time, tablets were merely seen as alternative input devices – replacing PCs was something no one thought about.

Apple's involvement started in 1987. Development of the first Newton started under then CEO, John Scully. The first

product of the series, the MessagePad, appeared in 1993 – and flopped just like its predecessor. Although the devices were a technical milestone, their high price and the disappointing handwriting recognition function came in the way of their success. Apple then discontinued the Newton series in 1998. This was Steve Jobs' decision. Around the same time – at the start of the 90s, more and more companies started developing tablets and PDAs. GRiDPad and from 1996 the Palm series became popular.

However, there were no major breakthroughs. All this changed when Steve Jobs introduced the iPad in 2010 and threw the usage of a pen or stylus out the window. Suddenly, tablets became more than just accessories and started replacing computers. By September 2014, Apple sold 237 million iPads. Competitors followed suit and provided more and more tablets running on Android or Windows. The PC market suffered as a result and has collapsed considerably. 📉

New mobile chips

The palette of 64-bit System-on-Chip (SoCs) is growing. We show you what the chips can do and when they will be in stores.

SoC	Exynos 7 Octa	MT6735	Snapdragon 615	Snapdragon 810	Snapdragon 410	Tegra K1	A8X	A8
Manufacturer	Samsung	Mediatek	Qualcomm	Qualcomm	Qualcomm	nVidia	Apple	Apple
Available from	In stores	Start of 2015	In stores	Mid 2015	In stores	In stores	In stores	In stores
Reference device	Galaxy Note 4	-	HTC Desire 820	-	HTC Desire 510	Nexus 9	iPad Air 2	iPhone 6
CPU (GHz)	Cortex A57 (1.9GHz), Cortex A53 (1.3GHz)	Cortex A53 (1.5GHz)	Cortex A53 (1.8- and 1.0GHz)	Cortex A57, Cortex A53	Cortex A53 (1.2GHz)	Denver (2.5GHz)	Cyclone 2 (1.5GHz)	Cyclone 2 (1.4GHz)
No. of CPU cores	8	4	8	8	4	2	3	2
Instruction set	ARMv8	ARMv8	ARMv8	ARMv8	ARMv8	ARMv8	ARMv8	ARMv8
RAM	LPDDR3-800	LPDDR3-800	LPDDR3-800	LPDDR4-1600	LPDDR3-533	LPDDR3-933	LPDDR3-1333	LPDDR3-1333
Graphics	Mali-T760	Mali-T720	Adreno 405	Adreno 430	Adreno 306	Kepler	PowerVR GX6650	PowerVR GX6450
Production process	20nm	28nm	28nm	20nm	28nm	28nm	20nm	20nm

■ YES □ NO

Snapdragon 810: Better functions and 64-bit support

Qualcomm, the market leader for mobile chips, has introduced a series of new features in its high-end chip Snapdragon 810. These features need more computing power and benefit from the 64-bit mode.

More services

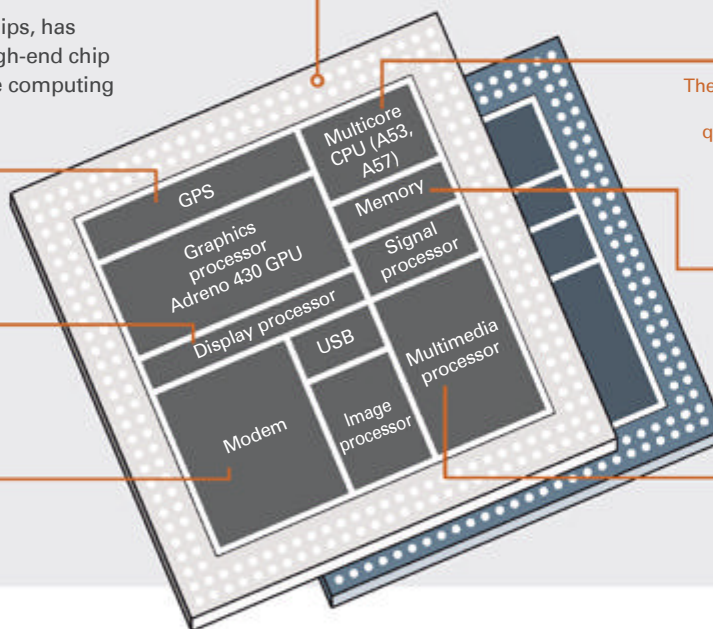
As a 64-bit SoC, Snapdragon can provide 810 more services such as permanent GPS in the background

Sharp displays

The powerful graphics supports displays with a resolution of up to 4K (3,840 x 2,160 pixels)

Faster surfing

The modem is compatible with category 6 LTE Advanced with a maximum data rate of 300MBit/s



Two CPU variants

The four A53 cores are efficient and power-saving. You can add four quick A57 cores if you need more power

Turbo RAM

Fast CPUs require a fast RAM such as the LPDDR4 RAM with high 1,600MHz clocking

4K multimedia

To play 4K videos, the chip is able to decode the new H.265 format

CPU architecture improved for optimum performance

The new instruction architecture ARMv8 has a 64-bit mode which its predecessor ARMv7 didn't have. But all the latest 32-bit apps too run faster on it – thanks to more registers and a bigger memory.

New architecture

ARMv8 is a 64-bit architecture with a newly developed instruction set, which also runs 32-bit apps.

More tabs

CPUs save their computation work in registers. ARMv8 has more number of registers that are bigger than before.

RAM upgraded

ARMv8 uses 48-bit of the address bus for connecting the RAM; 256TB is the limit.

	ARMv8 (AArch64)	ARMv7 (AArch32)
Architecture	64-bit (AArch64)	32-bit (AArch32)
Instruction set	A64	A32
Supports 32-bit/ 64-bit apps	■/■	■/□
Register width	64-bit	32-bit
Freely usable registers	31	16
Floating point registers	31	14
Instruction width	32-bit	variable
Size of the physical address space/ RAM addressable	48-bit/ 256TB	40-bit/ 1TB
Size of the virtual address space/ RAM addressable	64-bit/ 16 ExaByte	32-bit/ 4 GB
Encryption	■	□

■ YES □ NO

New operating systems in the 64-bit mode

iOS 8 and Android 5.0 are compatible with 64-bit. Android doesn't indicate whether ARMv8 is active or not; you need a Benchmark app **1** for that. All standard apps such as Google Chrome have already been optimised for 64-bit **2**.



64-bit System-on-Chips (SoCs)

Smartphones and tablets are on the verge of getting a performance boost – new high-end and mid-range devices are moving to 64-bit mobile processors. We show you what this entails By Jörg Geiger

What do the iPhone 6, Google Nexus 9 and HTC Desire 510 have in common? All three devices across the globe have a 64-bit CPU. Many smartphones and tablets will be switching from 32- to 64-bit mobile processors. To achieve this, numerous new chips will be in the market by 2015 (refer table on the left). While Windows is switching from 32- to 64-bit because of its RAM limit of 4GB, mobile phones and tablets still get by with a 1- to 3GB RAM. The advantages of 64-bit mobile chips are evident in other fields. We will tell you which ones.

More than 99 percent of the mobile chips use the chip architecture of the British architecture specialist ARM. As early as in 2011, ARM used a trick to pack more RAM support in its 32-bit mobile processor Cortex A15 in 2011 than one would need in the subsequent years. With the help of a technique called Large Physical Address Extension, the Cortex A15 can address a 1TB RAM in a 32-bit environment. There is no RAM-emergency in mobile devices as a result. From the technological point of view, 64-bit architecture means that a CPU can process 8bytes (64-bit) in one clock pulse, while a 32-bit system can process only 4bytes per clock pulse. This is the first advantage: the 64-bit architecture does double the computing work in one clock pulse. Alternatively, manufacturers can also reduce the CPU clock pulse as required. Smartphones would then respond faster but would consume much more power.

Some adjustments need to be made in order to feed a 64-bit CPU with an adequate number of bytes; since data is transported to the CPU via a bus system, the bus must support the 64-bit architecture. A distinction is made between an address and data bus – both use 64-bit in a 64-bit system even if all 64-bit are not really required in practice. Then there is the memory next to the CPU, i.e., the registers. These are used for basic computation operations and need to be 64-bit wide. The thing that applies to buses is applicable here too: a big memory is good and bigger is better. Big register sets also ensure greater performance.


Double the computing power

ARM's decision of switching its system architecture to 64-bit when changing from ARMv7 to ARMv8 has proven to be the deciding factor for the 64-bit trend in mobile devices. Apple was the first chip manufacturer to have implemented the migration to 64-bit in its iPhone 5s. Naturally, it didn't take long for its competitors to follow suit and implement the ARMv8 architecture. As a result, there are more and more so-called SoCs (System-on-Chip) in the

market, which work with 64-bit. The real innovations lie in the possibilities that ARMv8 offers (see comparison with ARMv7 on previous page). Since the world of mobile devices used to tick in 32-bit, it is not possible to switch to 64-bit in a day: none of the established 32-bit apps would work. Therefore, ARM has employed a clever technology in ARMv8, which combines both modes: 32-bit apps continue to work in a 32-bit mode, while the operating system and 64-bit apps work in the 64-bit mode. The user can see no visible change.

Compatible with all apps

In theory, ARMv8 can use significantly more RAM than the previous model (ARMv7). Out of the 64-bit, ARMv8 generally uses 48-bit for RAM addressing. Thus, the new architecture can provide a RAM of up to 256TB. The real advantage of ARMv8 however is the 64-bit instruction set A64. ARM has revamped it thoroughly and has got rid of the shortcomings that thwarted ARMv7. All instructions now have a fixed length of 32-bit. As a result, two instructions can be combined in one 64-bit instruction word. ARMv7 on the other hand allows a variable instruction length. This sounds good but results in more effort for the CPU when decoding instructions. Today the standard size for all instructions is 32-bit and they can be processed faster. Branch predictions, i.e., the foresight when working with codes, can be implemented more easily and are less prone to error when instruction lengths are fixed. Plus, ARM has equipped its 64-bit architecture with bigger and larger number of registers. The number of freely usable registers and floating point registers has doubled, which leads to a higher computation throughput. This primarily helps complex apps as well as Just-in-time-Compilers that work in the background and which translate code into machine language at runtime. This accelerates web apps because they use a lot of JavaScript. ARMv8 has a security advantage as well: the hardware encryption is more efficient for AES and the hashing algorithms SHA-1 and SHA-256 are also supported now.

However, 64-bit in hardware is just half the story; the operating system and software must be upgraded too so as to really implement the advantages. The good news is that iOS 8 and Android 5.0 are fit for 64-bit. Apple has already paved the way for the App Store. New apps, which will be available in the App Store from 1 February 2015, will necessarily support 64-bit. Microsoft has not made an official statement about 64-bit in the Windows Phone yet, however the first prototype has already been seen. 

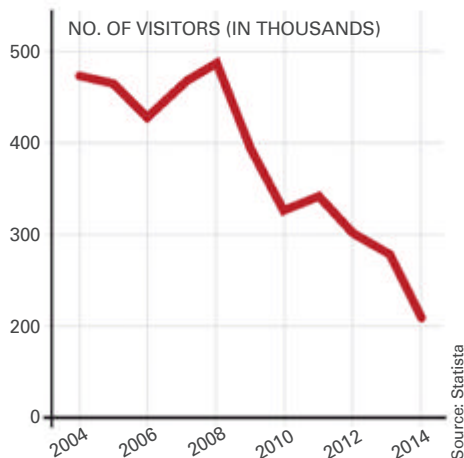
2015's Important Trade Fairs

When the first CES event took place in New York in 1967, there was no Facebook, no Google and no WWW. Even so, the show managed to attract 17,500 visitors. Those who wanted to peek into the future had to go to CES. This is where some of the most important technological innovations were presented for the first time, such as the first video recorder (1970), the first CD player (1981) and the first DVD (1996). Since then, several trade fairs and events have tried to outdo CES, and the few that managed to succeed garner at least as much attention as the original.

IFA (Berlin) now attracts almost 100,000 more visitors than CES. However, with a score of 335,000 visitors, gamescom (Cologne) (which is the largest computer games fair in the world) is ahead of the rest of the pack. However, that doesn't necessarily mean that things are going to stay that way. CeBIT, the world's largest IT fair, has lost several visitors and its top rank in recent years. Above all, symposiums like Apple's Worldwide Developer Conference are currently in the ascendant. Until a few years ago, new Apple products were unveiled at Macworld – which was one of the most successful Mac fairs. 2015 will be the first year in which Macworld will not take place at all. 🇩🇪

Number of visitors – CeBIT

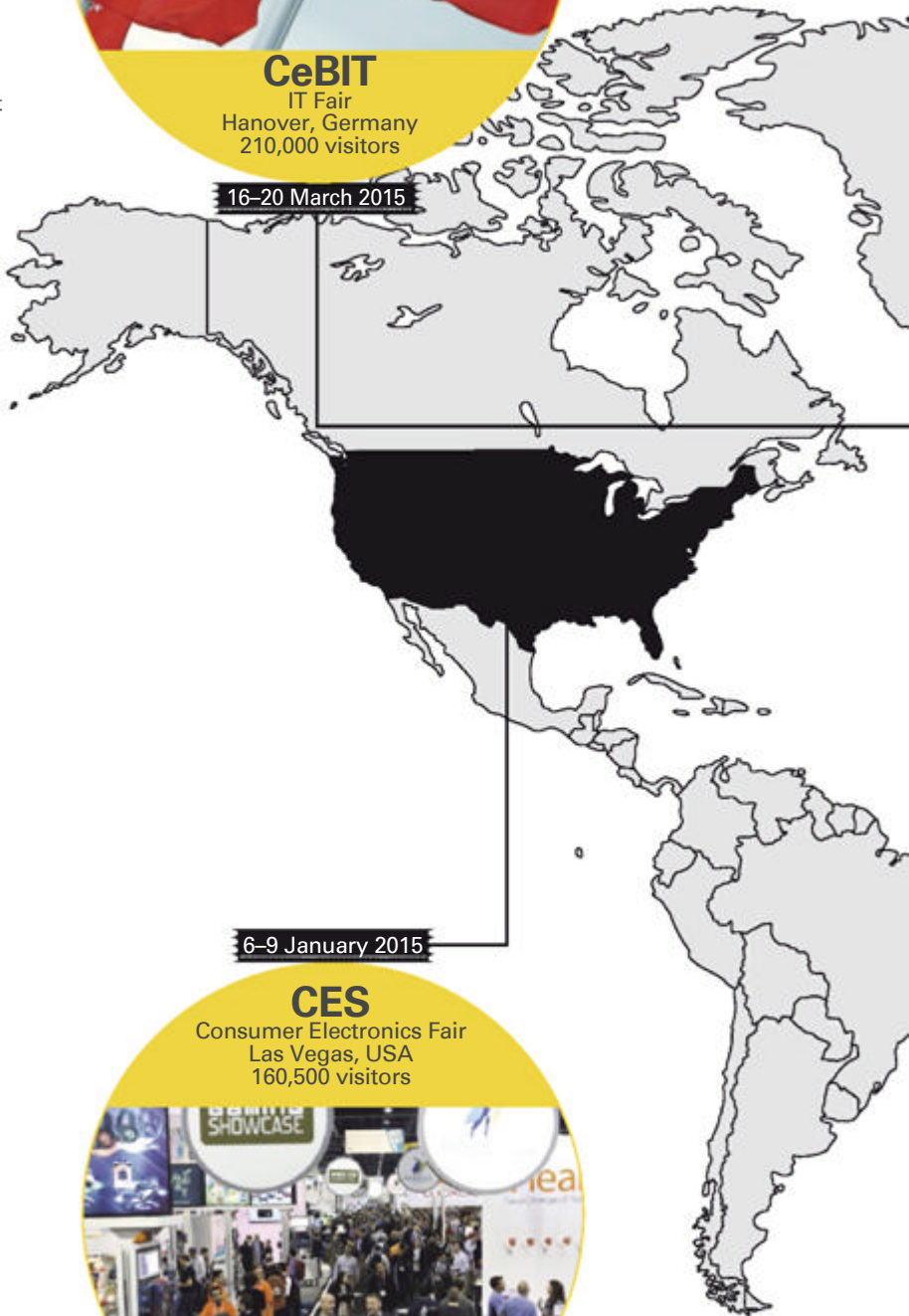
Until recently, the Hanover-based fair was one of the most important IT shows. Now, more and more organisers are staying away from it.



CeBIT

IT Fair
Hanover, Germany
210,000 visitors

16–20 March 2015



6–9 January 2015

CES

Consumer Electronics Fair
Las Vegas, USA
160,500 visitors





IFA
Consumer Electronics Fair
Berlin, Germany
240,000 visitors

4–9 September 2015

gamescom

Gaming Fair
Cologne, Germany
335,000 visitors

6–9 August 2015

2–5 March 2015

MWC
Mobile Phone Fair
Barcelona, Spain
85,000 visitors

2–6 June 2015



Computex
IT Fair Taipei, Taiwan
130,000 visitors

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Dangerous Software

Are we patching our way to more damage? Newer software errors threaten more than just private PCs – they shake the foundations of the Internet By Markus Mandau

For eleven years, Windows users have been repeating the same procedure every second Tuesday of every month – they install security updates, which Microsoft provides on the patch day. Next in line is a new Flash Player version and sometimes a Java Runtime. There are very sound reasons for these never-ending patch-up jobs: software that is installed on many computers automatically becomes an attractive target for hackers, who aim to spread their malware as much as possible. Moreover, established software have a long life. Operating systems such as Windows build the foundation for thousands of applications. Their system interfaces, which contain some old computer code and which have been developed for over decades need to remain compatible. The same holds true for popular standard programs that open popular formats such as PDF, Flash or Office files.

Old system dependencies as well as the implementation of new features make software less secure if security is not given the first priority, which is shown by two examples from the recent past: those who buy e-books in the EPUB format need Adobe Digital Editions in their computers. It was recently discovered that from version 4.0, the program not only sends information for license verification but also sends data about the reading behaviour of e-book buyers to Adobe – and without encryption. Adobe has responded and integrated encryption via an update. It is a pity that in the days of extensive NSA snooping, such a feature is provided only after a problem is discovered.

Security is not the highest priority

Apple too has focused on the wrong priorities when delivering iOS 8. The result – the initial releases were full of crippling bugs. The manufacturer had to actually withdraw version 8.0.1. Such a debacle was caused by quality control errors, which are an indication of the shortcomings in the internal decision-making process: conflicts between developers, who want more time, and product managers, who want to launch the releases as soon as possible. Moreover due to the obligation to maintain confidentiality, version 8.0.1 was not tested in detail.

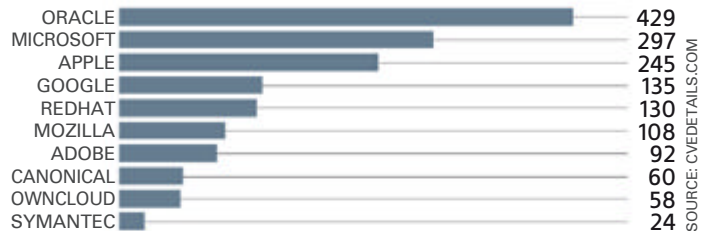
There is an exploit market, which looks at bugs as commodities. Organisations such as the Google Vulnerability Reward Program pay for bugs so that they can resolve them as soon as possible (see right). However, there are clients, who are not interested in improving the shortcomings. Apart from cyber criminals, more and more secret services as well as law enforcement authorities are turning into exploit clients after the Snowden revelations. No wonder then that the famous hacker Kevin Mitnick wants to open an exchange for such transactions (Absolute Zero-Day Exploit Exchange). In this exchange, severe bugs starting from level 8 on the CVSS scale are sold for US\$100,000 (~RM363,000) and more. Even Google cannot compete with such amounts. Authorities no longer have security concerns such as those that existed at the time of the Federal Trojan: following the motto “surveillance before security”, FBI chief James Comey demands access to iOS and Android data encryption. This is possible only via intentionally added software errors. We have analysed how severe the latest bugs for operating systems, applications and browsers are and we shall show you this on the following pages. The pages make one thing clear – even central Open Source projects are being eyed by hackers.

No end to bugs

The number of exploits has been high for years. Hackers are eyeing standard software, also because security is not always the first priority when such software is developed.

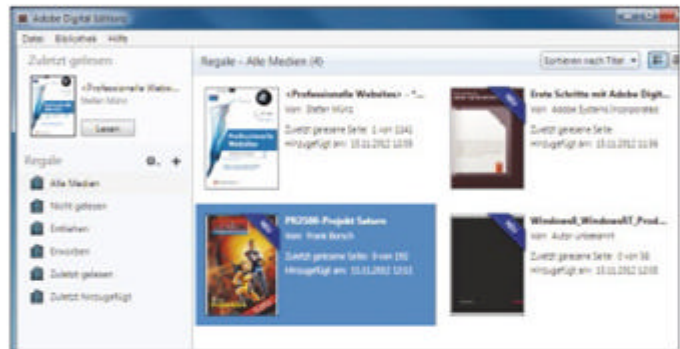
Manufacturers with the most bugs in 2014

The more widely used the software of a manufacturer is, the more intently hackers look for bugs in it. Since 2012, Oracle has been at the top of this list because Java is producing a lot of trouble.



Invitation for data spies

Until recently, Digital Editions 4.0 sent information about the e-book collection of users without encryption to Adobe via the Internet.



Google's reward for dangerous bugs

Hackers, who are the first to approach Google with newly discovered bugs in Google services or applications, get a tidy little amount of money. But the free market offers more!

Bug type	Google account	Central services	Google programs	Unimportant services
Running malicious code	US\$20,000	US\$20,000	US\$20,000	US\$1,337–5,000
SQL bugs in databases	US\$10,000	US\$10,000	US\$10,000	US\$1,337–5,000
Cancelling authentication	US\$10,000	US\$7,500	US\$5,000	US\$500
Cross site scripting	US\$7,500	US\$5,000	US\$3,133	US\$100
Other scripting bugs	US\$500–7,500	US\$500–5,000	US\$500–3,133	US\$100

SOURCE: GOOGLE



On his Zero-Day Exploit Exchange, hacker Kevin Mitnick sells unpublished bugs for prices starting at US\$100,000

PHOTOS: NIKOLAUS SCHÄFFLER (LEFT); DPAPICTURE ALLIANCE/PAKAI FOERSTERLING (RIGHT)

Errors in systems

A prognosis about how secure a software is can be made on the basis of the number of errors discovered in it. This prognosis becomes more accurate if more and more hackers turn their attention to it in order to find loopholes. The National Vulnerability Database (NVD) of the American government collects the discovered security loopholes and evaluates them for their severity. The Common Vulnerability Scoring System (CVSS) gives 0 to 10 points, where 10 means that the hacker can take over the system effortlessly. Errors with a score between 7 and 10 are rated as severe.

For a long time, Windows has been seen as an insecure operating system; unlike both the Apple operating systems that have a good reputation. But the NVD numbers indicate otherwise: in 2014, Apple has the maximum number of bugs, while Windows 7 and 8 have fewer bugs than large Linux distributions. The CVSS score however provides a different perspective altogether about the gravity of these bugs: only 19 of the 97 bugs in Apple iOS proved to be serious ones. On the other hand, 18 out of the 26 bugs in Windows 7 were problematic and allowed hackers to run malicious code on systems. Hackers procured higher-level rights through eleven Windows bugs. This is more difficult in Unix-based systems: Mac OS has two and iOS has four such bugs. 10% of errors in Linux are of this type. Yet, it pays off to use the monthly patches released by Microsoft as the number of bugs discovered is reducing. The number of errors in the Mac OS has increased again since 2012 while high numbers of errors continue to persist in iOS.

Windows is slightly more secure than one thinks

The number of errors is reducing for standard applications in Windows as well: the number of Office errors has been decreasing for many years. The same goes for Acrobat Reader. Adobe also provides regular patches for the Flash Player but with little success: its integration in the browser makes it an ideal target for hackers. Users have no choice but to keep installing software patches. A tool such as CHIP Updater helps them do so. It analyses the system and updates it automatically. If you want to play it safe, you should install less widely used alternatives: LibreOffice instead of MS Office or Sumatra PDF instead of Acrobat Reader.

Severe security loopholes almost always dodge the memory management of a system. As a result, malware can overwrite memory sections reserved for system-relevant applications with the help of a buffer overflow. Virtual machines and sandboxes are supposed to prevent this, but their code itself is susceptible to errors. Since version 10, the Acrobat Reader contains a sandbox, in which it opens PDF documents. In 2014 alone, three level 10 errors were discovered, which overturn this protection.

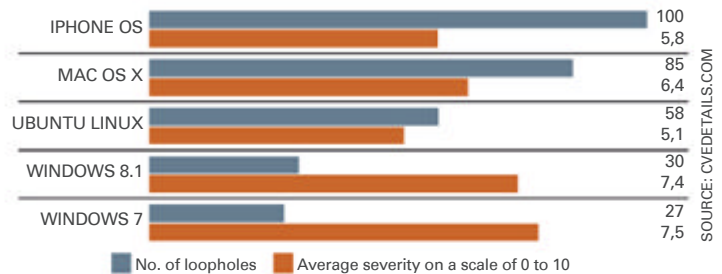
The Docker principle could be a general solution for bugs in the future. So far, it has only been used for server applications in Linux (see right). A Docker container contains a program code and all system libraries, which the program needs when it runs. Only the well-protected container is started along with the container. Docker doesn't use many resources but fulfils the purpose of a virtual machine for applications. Microsoft plans to integrate Docker in the next release of the Windows server – so it will make its way to the PC soon enough.

Software as target

Windows and its standard programs have fewer bugs than is generally supposed. What's even better is that important software is completely immunised with the help of technology.

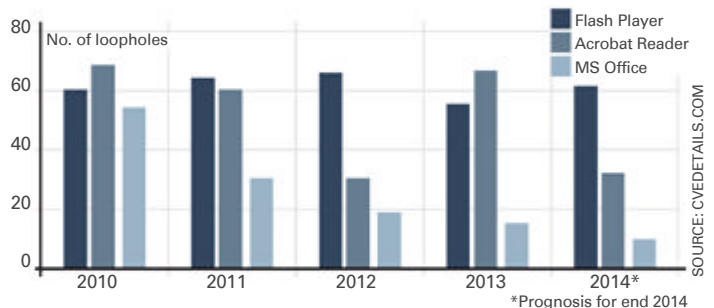
The most susceptible operating systems of 2014

Apple systems have the highest number of security loopholes, followed by Linux and then Windows 7 and 8. However, the Windows bugs are more severe.



Progress made by standard applications

Adobe and Microsoft have been coming out with monthly patches for years now. This is good because it reduces the number of bugs in standard applications – with the exception of Flash Player.



Never miss updates

The CHIP updater checks which programs are installed on the operating system and shows whether there is an update for them.



A security concept for the future

The Docker website provides software that is executed in secure containers. The Docker packaging originates from the Linux world and is currently used on servers only.



Surfers are living dangerously

Traditionally, browsers have been the first point of attack on home PCs. As soon as a browser opens up a website, it processes script code and the user uses it to transfer important data to mail and cloud services during online banking or when logging in. Unlike Office or Acrobat, the user doesn't need to open any documents to get attacked – on the web, you simply need to visit the wrong site at the wrong time. The system often gets infected via a script that loads more malicious code by means of a drive-by download in the background. This often takes advantage of the weak spots in plug-ins or system libraries to overwrite other areas of the memory. Windows has actually implemented technologies to prevent this but they are of very little use.

Windows and iOS use Data Execution Prevention (DEP) to define areas in the memory, where code must not be executed. Malware writers counter this with Return Oriented Programming (ROP). In this, they don't use their own executable code, but call up program functions that are already loaded in the memory. They activate these through manipulated return addresses, which are located in an area reserved for them (called stack). The return address indicates what should happen if a calculation has been executed. It can be used to call up the VirtualProtect function for instance. It contains the option to deactivate the DEP. Since 2010, ROP is growing in popularity and practically all bugs discovered in Internet Explorer in 2014 are based on ROP tricks.

Internet Explorer under fire

IE is apparently especially susceptible to ROP; the number of bugs in it and their severity has jacked up: in 2014, the IE achieved a record score of 9.1, while Firefox, Chrome and Safari have an average of 6.8 and 7.3. Address Space Layout Randomisation (ASLR) helps combat ROP because it randomly assigns sections of the memory to applications. So a hacker doesn't know where he should write his malicious code even after deactivating the DEP. As a countermeasure, hackers use a method called spraying, which randomly distributes the malware code across large sections of the memory. This increases the chances of the code being written despite enabled ASLR.

Microsoft has released the Enhanced Mitigation Experience Toolkit (EMET) which is a software that enables additional memory protection technologies for the installed applications (see right). As a result, it has now become a target for hackers and there are exploits that reverse the EMET security. For a browser such as Firefox, it is recommended that a security add-on such as NoScript be used, with which one can deactivate the execution of plug-ins or scripts individually. Java Runtime is the biggest problem for plug-ins. It is meant to execute the Java code under Windows. Meanwhile, the execution of the code in the browser can be deactivated directly from the Java settings. Many severe security loopholes with CVSS score 10 have prompted Oracle, which is responsible for developing Java, to integrate this function. 115 new bugs were detected in Java this year alone – this is more than double as those for the Flash Player.

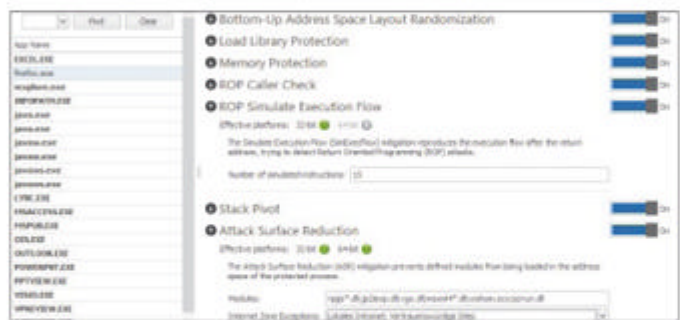
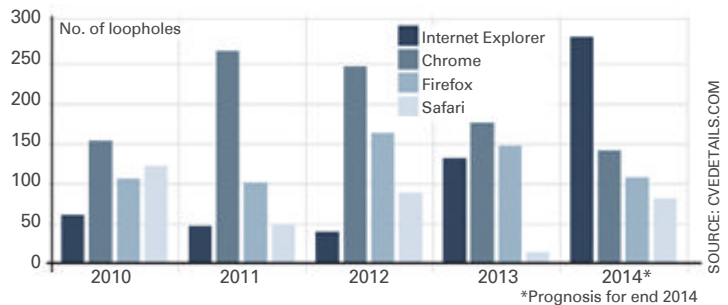
ONLINE BROWSERS

A cat and mouse game

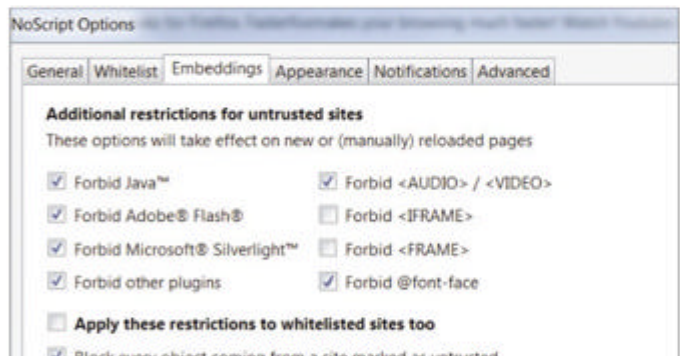
The easiest way to smuggle in malicious code is through a browser: it is always online and has more bugs than an operating system. But surfers can take countermeasures.

More and more errors in Internet Explorer

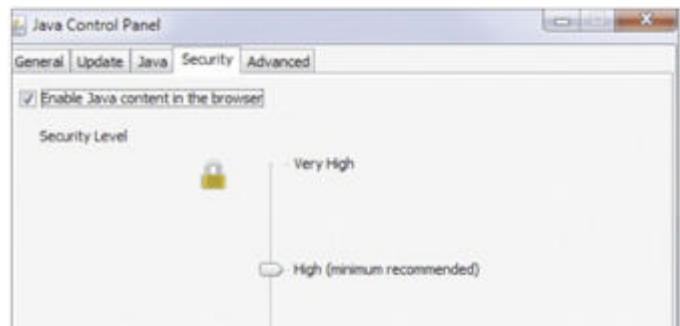
The trend is clear: more and more bugs have been discovered in Internet Explorer in the last few years. The performance of alternate browsers such as Chrome, Firefox or Safari is significantly better.



Memory protection: the Microsoft tool EMET activates additional security technologies for individual applications



Script protection: you can stop plug-ins and scripts in Firefox using the NoScript add-on



Deactivated by default: even Oracle, the Java developer, turns off browser integration in the settings

Open Source – a time bomb

After the Snowden affair, cryptography experts like Bruce Schneier started looking at Open Source as the last resort because authorities cannot have backdoors into open program code. Moreover, Linus' Law (named thus by the inventors of Linux) states that many help in finding and resolving bugs in the code. Most web servers such as Apache or Nginx are Open Source systems. Many databases and encryption programs as well use Open Source code either partially or entirely.

But a series of serious security loopholes shook the principle of Open Source in 2014 and exposed Linus's Law as chimera. The latest example of this trend is ShellShock: at the end of September, five grave level 10 errors were discovered in Bourne again Shell (Bash). They had remained undetected for 22 years. Bash is used for executing programs in Unix-based systems such as Linux and Mac OS. Many web server components, including the NAS at home were prone to ShellShock and had to be patched. Within hours, hackers had sent virus-containing mails to unpatched servers. The mail header contained codes that helped operate the servers automatically via Bash.

Very little money for Open Source projects

Web encryption is based on Open Source too. It allows tap-proof communication between servers and browsers. With the help of OpenSSL, two thirds of the servers generate a public key suitable for their private key and send it to the browser. A bug called Heartbleed created a furore towards the end of April. It allowed hackers to read the memory content of OpenSSL, which often includes a private key. As a result, hackers can tap the entire encrypted communication of the server or decode it later. Heartbleed and ShellShock have one thing in common: the code is programmed by a number of volunteers but checked for security only by a few – only eleven developers with an annual budget of US\$2,000 (~RM7,260) coming from donation money look after the OpenSSL project. The free code was obviously used by all big IT companies.

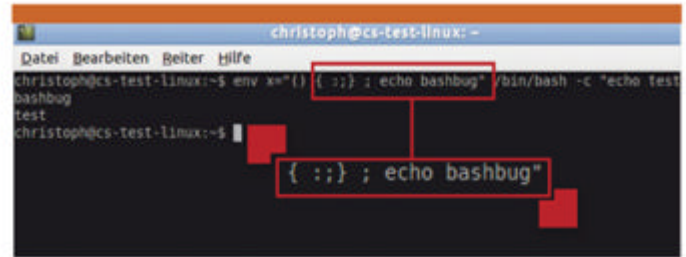
People were just coming to terms with Heartbleed when they were hit by Poodle, a bug in the security standard SSL. Unlike in Heartbleed, surfers can protect themselves from this bug and allow only TLS processes. The mail encryption PGP could be the next target, especially because Google and Yahoo want to build a PGP variant. Security researcher Matthew Green thinks that significant aspects of the PGP project, for example, its key management, are outdated – just like OpenSSL. PGP should preferably use a method called Perfect Forward Secrecy: it deletes the keys after use.

The spotlight is now on the issue of the security of Open Source: big IT companies such as Google, Microsoft and Adobe have ensured better financing as part of the Linux Foundation. The Core Infrastructure Initiative has an annual budget of US\$1.2 million (~RM4.35 million). They want to use this money to hire experts to check the Open Source code – high time to do that because an eight year old bug has already been detected in Bugzilla. Many software projects use this bug tracker to list and fix internally found errors – so this is a goldmine for hackers. 

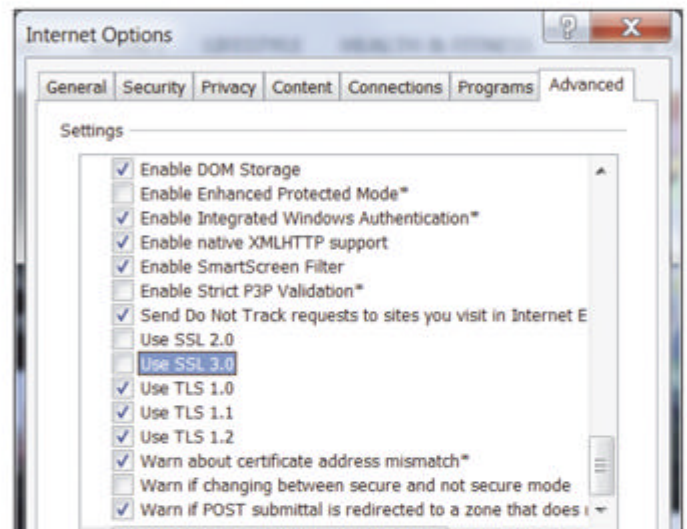
PHOTO: CARA WALLEN

Forgotten errors

Larger parts of the Internet are managed using Open Source programs. These were targeted in a series of attacks in 2014, in which hackers took advantage of security loopholes that were a decade old.



The ShellShock error makes it possible to transfer Linux Bash values, which could contain executable commands such as "echo" – and with the character string "{ :; } ;"



For 15 years, SSL 3.0 has facilitated web encryption but the error that has now been discovered cannot be fixed. If you surf with IE, you should deactivate it and use TLS.

Component	File Handling	Product	Firefox	Resolution	
ID	Product	Comp	Assignee	Status	Resolution Summary
210704	Firefox	File handling	nobody	NEW	Application chooser on mailto: send presumably other() links to unclear.
702146	Firefox	File handling	nobody	UNCO	When i upload the file with letter "i" in filename Firefox converts this letter to "ie" so this automatically from now on does not work
981380	Firefox	File handling	nobody	UNCO	Firefox still hangs up and becomes nonresponsive on "save all" file download on
1048018	Firefox	File handling	nobody	UNCO	Firefox tries to display a download instead of downloading and shows gibberish ((*****))
1019401	Firefox	File handling	nobody	NEW	Firefox launches Flash Player plugin for flash at web URLs, but tries to download it
940803	Firefox	File handling	nobody	NEW	Firefox launches Flash Player plugin for flash at web URLs, but tries to download it
1001608	Firefox	File handling	nobody	UNCO	Firefox for Mac OS X drag & drop image saving produces empty files in some instant
1005304	Firefox	File handling	nobody	NEW	Intermittent intermittent browser_new_videos (2) Video file name is correctly retri
770714	Firefox	File handling	nobody	NEW	header - Get bug564387_videoLog, expected bug564387-expectedName.org
844153	Firefox	File handling	nobody	NEW	Using "open with" from download dialog does not render a link to a local file as v
440893	Firefox	File handling	nobody	NEW	Firefox can't open local file with path longer than 256 characters in windows
944932	Firefox	File handling	nobody	NEW	network.protocol.handler.extends: external are ignored
1002747	Firefox	File handling	nobody	UNCO	mailto: links ignore target="blank"
1002747	Firefox	File handling	nobody	UNCO	prevent browsing local file system through address bar

Bugzilla lists unfixed errors in software projects. Thanks to a bug, hackers could access the respective lists.



"PGP encryption has some basic flaws"

Prof. Matthew Green,
American security researcher at the Johns
Hopkins University in Baltimore

A password isn't enough

The two-factor authentication (2FAS) system ensures that a hacker cannot use a stolen password to do any damage. It requires the user to identify himself using an additional independent factor – such as a USB token.

First Factor Something that you know

As always, the procedure of logging on to a site over the internet involves the use of a username and a password. To facilitate advanced verification, the user usually has to specify his mobile phone number.

Second Factor

Something that you have/are

In order to ensure a high level of security, the second factor must be used independently of the first. Scenarios in which the same smartphone is used to log on and provide verification via factor 2 are ruled out.

Token

A token can be a smart card or a USB stick with a special chip. Industry standards such as FIDO allow the stick to be used for several service providers.



Mobile phone

When it comes to authentication procedures for online services, the smartphone is the most widely-used additional factor. The service provider can send an SMS with a PIN, or the PIN can be generated by an app.



Biometry

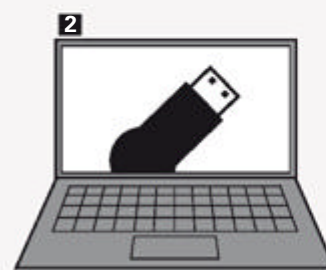
Instead of being something that the user possesses, the second factor can also be a physical identifying characteristic of the user, such as a fingerprint.



This is what the user sees

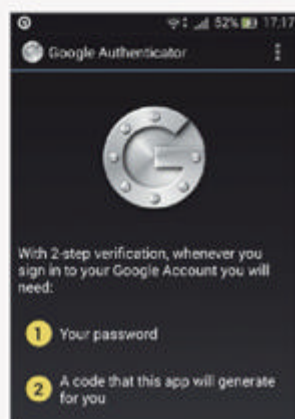
The authentication scheme that makes use of USB tokens (which is the scheme that Google offers) is particularly convenient.

- 1** The user name and password are entered.
- 2** The USB stick is inserted. The service grants access.
- 3** The service grants access.



One app for everything

The Google Authenticator, which makes it possible for users to log on to Google services and other online services and is based on the time-based one-time password (TOTP) algorithm (standard RFC 6238), is used by many service providers, including Microsoft, Google, Facebook and Dropbox. Advantage of this method: No internet connection is necessary, as the code is generated on the smartphone.



“A two-factor authentication scheme probably would have prevented all of this from happening”

Mat Honan, Journalist,
whose digital life – including his laptop, which contained photos of his little daughter – was almost completely erased by hackers in 2012

Two Times The Charm

The two-factor authentication scheme makes it almost impossible to crack passwords, and it's also easy to set up

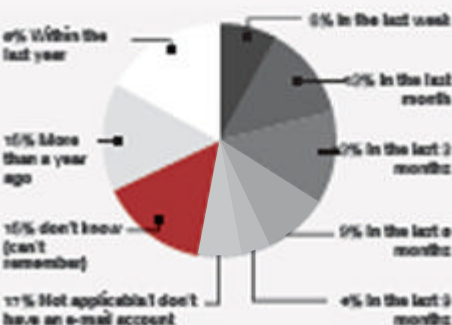
By Niels Held

In August, when reports surfaced that several intimate photos of celebrities had been stolen from Apple's iCloud, the company reacted very quickly: Just three weeks later, Apple introduced the two-factor authentication scheme for iCloud backups. Now, even if hackers obtain the password combination corresponding to such an iCloud account, they won't be able to do any damage without accessing the iPhone belonging to the account owner.

Unlike the typical address-password combination that is associated with e-mail accounts which can be entered by just about any insider, the two-factor authentication scheme calls for the simultaneous use of two independent factors, so that the person in question can be identified beyond all doubt. The first factor is usually a password or a PIN. The second factor can be a token, such as a special USB stick, a PIN generated on the mobile phone, a smart card or a fingerprint – something that only the account owner has access to. Most internet providers offer a procedure in which a randomly-generated one-time code is sent to the mobile telephone of the account holder via SMS. The user then enters this code into the corresponding field in the browser.

Passwords are insecure

Most e-mail users either changed their e-mail passwords more than a year ago or can no longer remember it.



The Fast Identity Online (FIDO) alliance involves a collaborative effort between companies such as Samsung, Lenovo, Synaptics etc. These companies are working together to set up a standard for secure, password-free authentication. Consequently, any website or cloud application should be able to identify its users via their FIDO devices (such as special USB sticks). At the same time, the organisation is also setting up specifications for a two-factor authentication scheme (U2F) that would make use of web browsers. Google has implemented this system with Chrome 38, and the company is already offering this scheme for its services.

With Windows 10, Microsoft is planning to entrench the two-factor authentication scheme at the level of the operating system. Consequently, devices such as desktop PCs, laptops and tablets will themselves become factors. Instead of using each device as a factor, the user can also use a mobile telephone as a factor. As far as Microsoft is concerned, this means that passwords will probably stop being used altogether. More information on this topic can be found in the article dealing with the first major update of the Windows 10 technical preview.

Who has it and who doesn't

Many web-based services already use a two-factor authentication system. An extensive list can be found at <https://twofactorauth.org>

Service	SMS	Token	App
Amazon	Has it	Has it	Has it
Apple	Has it	Has it	Has it
Dropbox	Has it	Has it	Has it
Facebook	Has it	Has it	Has it
Google	Has it	Has it	Has it
LinkedIn	Has it	Has it	Has it
Microsoft OneDrive	Has it	Has it	Has it
Twitter	Has it	Has it	Has it
Evernote	Has it	Has it	Has it
Yahoo Mail	Has it	Has it	Has it
GMX	Has it	Has it	Has it
PayPal	Has it	Has it	Has it
eBay	Has it	Has it	Has it

Has it Doesn't have it

HOW TO

Setting up a registration confirmation system for Facebook

Open the security settings. **1** Navigate to the "Login Approvals", click "Edit" and tick the respective option. **2** Enter your telephone number and get a confirmation code sent to yourself. **3** Activate the access path using the code generator, so that you will be able to access your account without using the mobile service.

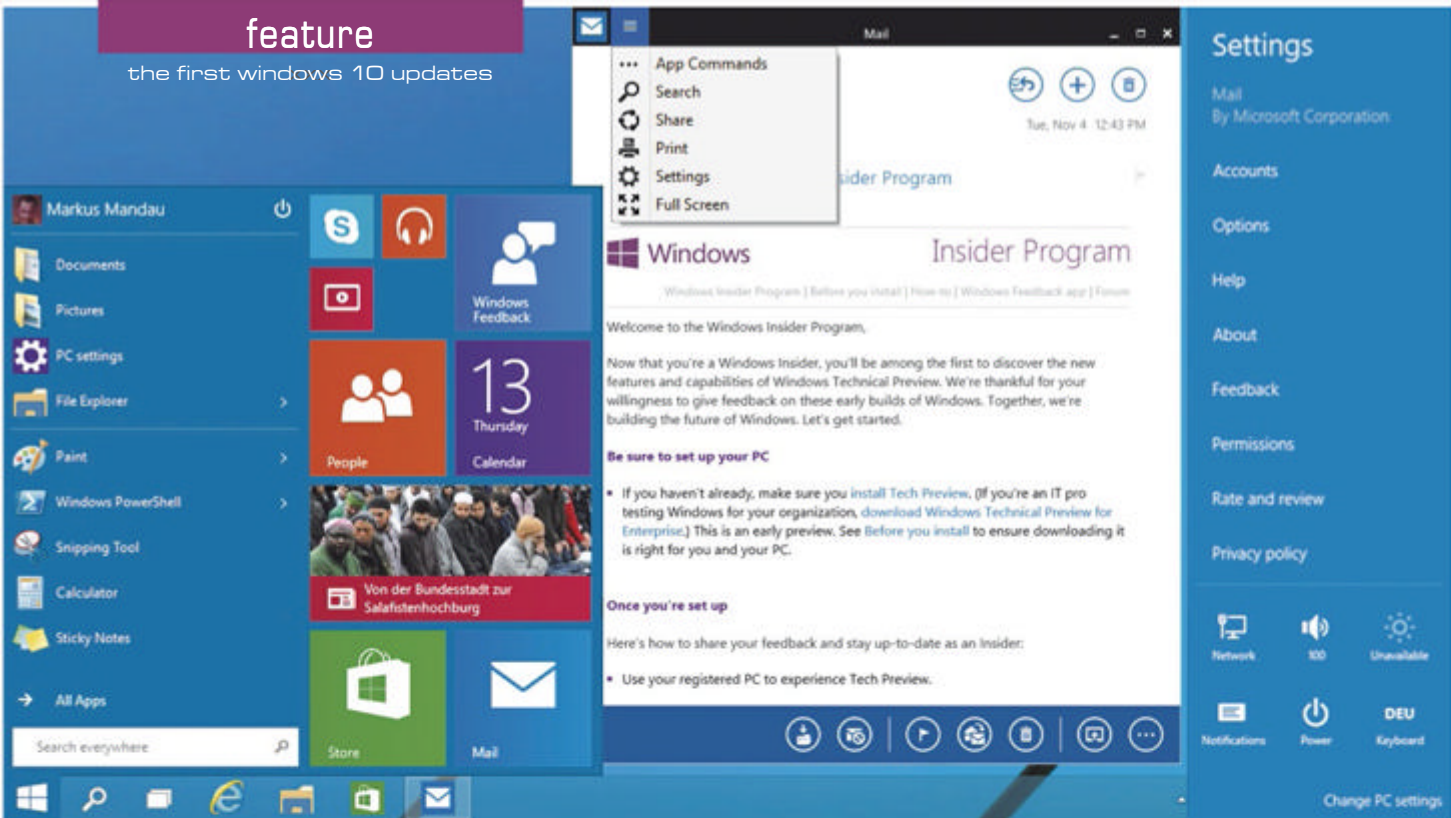


61%

of users use the same password for several web services (CSID, 2012)

31%

of the hacks that took place in 2014 exploited weak passwords (Trustwave, 2014)



Windows 10

The First Updates

The second preview-phase of Windows 10 has been released. A comprehensive system update has unveiled many new functions, which we're introducing in this article

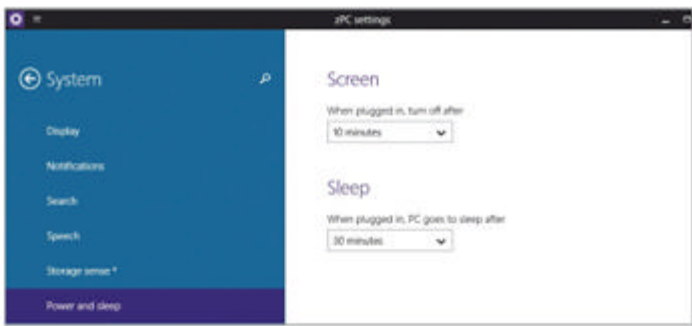
By Markus Mandau

When it comes to Windows 10, Microsoft has big plans, and very little time. The operating system is supposed to be ready and running on all device types – from smartphones and tablets to PCs – before the company's Build 2015 event. After the first technical preview was released at the beginning of October, the first big update was unveiled with Build 9860, and this was followed in short order by Build 9879. A range of new features points at what Microsoft is planning to do with the operating system – at least as far as the PC platform is concerned. In comparison with the first preview, the two builds introduce more than 7,000 improvements, most of which apply to operations taking place in the background. The following section sheds some light on the most interesting new features.

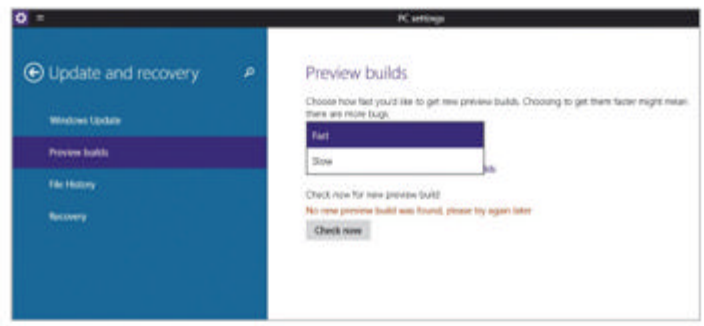
As far as the operations are concerned, the Windows 10 preview is hardly different from the popular Windows 7 operating system. Consequently, the final version should also appeal to users who no longer want to use Windows 8. Furthermore, a certain trend has been gathering strength since the release of Windows 8.1: The ModernUI is being eliminated from all devices that do not feature touch-based operations. Instead, the desktop-

related system has entered the equation. The first version of the preview also featured the return of the old-fashioned start menu. Microsoft also combined the call-up operations for desktop programmes and the apps that were introduced with Windows 8, thereby installing a function for launching each installed software. The apps run in windows on the desktop, and clicking the three bars in the upper-left section of the screen opens up an additional menu, which enables the user to access the "Settings" (see above image) and the additional "App Commands". Both features allow the user to configure the apps in accordance with one's own requirements.

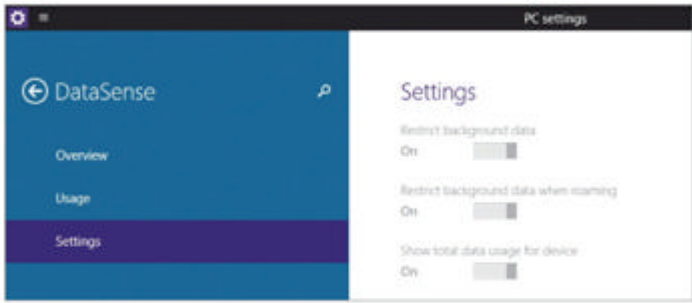
After the installation process has been completed, experienced Windows users usually take a look at the control panel. Build 9860 suggests that in Windows 10, the control panel is going to be renovated and switched over to the modern design. Microsoft tried to do this for parts of the PC-settings section in Windows 8, but the attempt failed: Many users were irritated by the fact that there were two locations that could be used to configure the system, especially since neither the ModernUI menu nor the normal control panel featured all the respective functions.



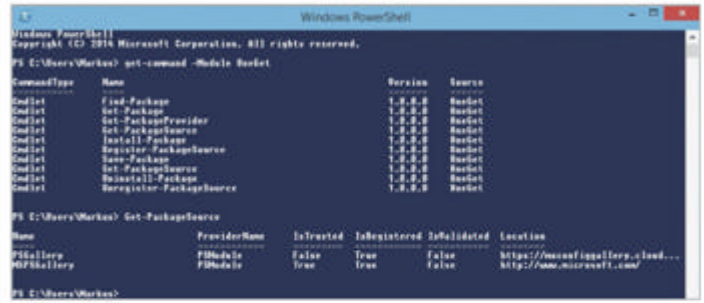
More and more functions (such as the energy-related options) are being transferred from the Windows control panel to the provisional "PC settings", which are accessed through the start menu



Participants in the Windows Insider programme can test the preview. You will receive the newest builds when you go to the "PC settings | Preview build" section and set the update-frequency to "fast"



Windows 10 is supposed to be compatible with everything from PCs to smartphones; the "PC Settings" offer the "DataSense" phone function, which minimises the usage of data in mobile networks



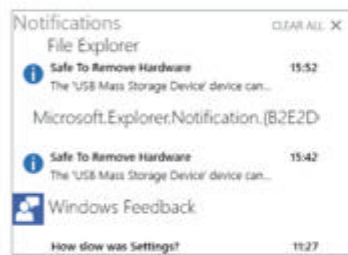
PowerShell makes it possible for the user to access the OneGet package manager and integrate software depots into the system. This function can also be used to install and update important freeware tools like 7-Zip

Although the preview contains the control panel, more and more functions are being transferred to the "PC settings" section, which can be accessed through the start menu. Eventually, both settings modules will probably be part of the new control panel of Windows 10.

Open-source: Role model for new functions

Microsoft is sourcing ideas for new functions from the open-source community. For example, the OneGet package manager can be launched via the PowerShell. The feature offers a central platform that can be used to download external programmes, install them and keep them up-to-date through automatic updates. For example, users can use OneGet to include the chocolatey.org software depot and obtain tools like 7-Zip and VLC media player. The Windows Media Player can now play the popular open-source Matroska (MKV) video format without making the user install additional decoders or players. The system also supports HEVC, the newest video compression standard. HEVC will eventually become absolutely indispensable when it comes to playing 4K films – The streaming service, Netflix is already using it.

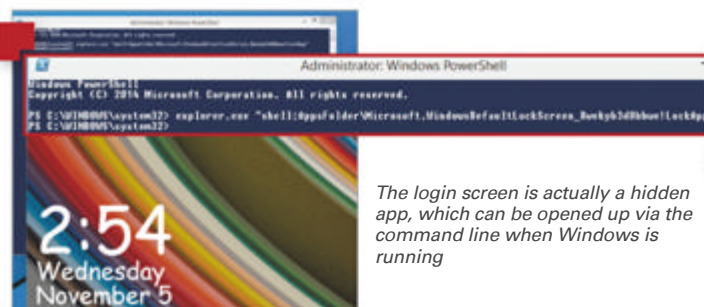
Another exciting innovation involves the implementation of an important security feature, namely, the two-factor authentication system. This feature nullifies password thefts and interceptions of online banking data. The central idea is that the log-in procedures for web-based services will no longer be based exclusively on passwords: They will also make use of a secret key, which is generated and protected by the system. To accomplish this, Windows uses the same asymmetrical method that browsers use to facilitate encrypted HTTPS web-communications: The web service in question receives a public key that has been generated by Windows, and which only works when it's used in conjunction with the secret system key. This feature has already been announced, but we don't know when it's going to be implemented. Perhaps it will be implemented with the next big update.



Microsoft has integrated a new notification centre into the taskbar. The new notification centre displays important system messages



The Windows Media Player can now play MKV format videos (which are widely used on the internet) without making the user install an extra decoder



The login screen is actually a hidden app, which can be opened up via the command line when Windows is running



PHOTO: THINKSTOCK/PHOTODISC

Hard Disk Drives

It has been almost 60 years since the world's first hard disk drive, the IBM 350, was released. From a modern perspective, it's almost impossible to imagine a world without the magnetic storage medium *By Caren Stella Geiger*

IBM introduces the world's first hard disk drive, the IBM 350	4 September 1956
Capacity of the first hard disk	5MB
Monthly rental fee for the IBM 350	US\$650 (~RM2,362)
Weight of the first hard drive	500kg
Size and weight of a standard desktop PC hard drive	3.5-inch, ca. 500g
Normal dimensions of hard drives for notebooks and mobile devices	2.5-inch (ca. 100g), 1.8-inch (ca. 50g)
Weight of the world's lightest hard drive, the Toshiba MK4001MTD (as of 2014)	6.7g
Year in which the GB-barrier was breached	1997
Year in which the TB-barrier was breached	2007
No. of book pages that can be stored on a 1.5TB hard drive	375 million
No. of minutes of music that can be stored on a 1.5TB hard drive	1.5 million
Current maximum capacity of a single hard drive (as of 2014)	8TB
Largest hard disk storage unit ever built (featuring 200,000 connected hard drives)	120PB
Average density of the data on current hard disks	500,000 tracks x 2 mil. bits per inch
Standardised sector size	4.096Byte
Year up to which HDDs could only be operated in the horizontal position	1990
Temperature range in which a hard drive exhibits the highest level of durability	25°C to 40°C
Year in which the first solid-state disk (SSD) appeared	1978 - StorageTek
Average SSD price per GB	35 Cent
Average magnetic hard disk price per GB	4,1 Cent
Launch of the first hybrid hard disks	2007
Maximum possible primary partitions per HDD – With MBR/partition size	4/2TB
Maximum possible primary partitions per HDD – With GPT/partition size	Unlimited/18 exabyte



BIG DATA

The New Picture Of A Human

Forget logic. Forget what you learned at school. Innovative algorithms examine high chunks of data and detect secret patterns, which could change our way of thinking forever

By Roman Leipold

When it comes to buying a used car, women are usually more interested in the colour of the car. However, men tend to look under the bonnet, examine the mileage indicator or take the car out for a test drive. Basically, they just want to see what the old crate can do. After all, they might have to rethink their decision. However, the American company Kaggle believes that those who purchase used cars that are painted orange end up dealing with half as many defects as buyers who ignore the colour altogether.

Kaggle, which is a cooperative start-up, doesn't sell cars; it specialises in a domain that could eventually set the world on fire: Big data. First and foremost, the term describes the massive growth of the digital universe. The quantity of data that is available in the world actually doubles every two years. Naturally, Facebook, YouTube and other communication-related services make a massive contribution to this growth. However, the show's just getting started: The 'internet of things', which has already become a reality in assembly lines and logistics centres, is now slowly taking over daily routines. In homes, in pieces of clothing, in the air and on or in human beings – We're surrounded by sensors that collect, store or send data.

Data being very valuable is common knowledge. Google and the NSA base their existence on our data. One of them goes after advertising customers, and the other one goes after terrorists; in both cases, the loss of privacy represents collateral damage. Military technologies and companies belonging to the financial and automotive sectors have been handling gigantic quantities of data for a long time.

However, the potential of big data is much larger: It promises answers to questions that we are yet to ask. The enormous databases contain information that is simply too complex to be understood by human beings. However, innovative analysis software can recover this treasure trove of knowledge by detecting patterns. Consider the following example: A research project in the USA has developed a diagnostic programme for premature babies. For each infant, 16 different data streams (such as data streams associated with cardiac activity and blood oxygen levels) are processed in real time. This results in the creation of about 1,260 datasets per child, per second. Analysing the data from all the babies makes it possible to detect infections 24 hours before the first symptom appears. The doctor can respond at an earlier stage, which in turn raises the likelihood of the treatment being

successful.

In addition to being able to make things better, big data can also call entire philosophies into question. The analysis data associated with the premature babies indicated a pattern that is diametrically opposed to conventional medical science: Before a severe infection emerges, the vital functions of premature babies stabilise. A status change of this nature (which usually reassures doctors) should, in the case of premature babies, be considered to be a warning signal: Something really is on the march.

Several new truths await us

We don't know exactly why the bodily functions of babies fluctuate from one extreme to another in such a short period of time. Viktor Mayer-Schönberger warns against drawing hasty conclusions: "Big data does improve our understanding of the world. It will make it possible for us to detect links that we were not aware of. However, the data presents a correlation, not a causality. We can see what's happening, but not why it's happening." The Austrian is a professor at the Oxford Internet Institute, and advises organisations, governments and companies in matters relating to big data. He has also written two insightful books on the subject. In his opinion, human beings often only see quasi-causalities, which lead to the illusion of knowledge. Mayer-Schönberger considers random samples and surveys to be shortcuts that often disregard reality: "In the future, we will regularly use big-data correlations to subject our understanding of cause and effect to a rigorous reality test."

Naturally, the task of thinking about the causes of remarkable big-data results can be an enticing and occasionally enjoyable challenge. Why are orange-coloured used cars expected to last longer than others? Kaggle discovered this particular correlation by analysing the data of a large American car company over a period of ten years. Does the bright colour of the car result in fewer accidents? Is that why these cars are less damaged at the time of the secondary purchase? Are the owners 'individualists' who let their cars 'speak' for themselves, and who consequently take very good care of them? Are orange cars usually 'second cars', i.e. do their owners have more experience when it comes to driving cars?

Correlations can be verified mathematically, but this can rarely be done in the case of causalities. Big data can help people make better decisions, but the findings have to be re-checked again and again. A change in the status of the data can lead to a change in the correlation. In any event, the automobile industry isn't going to decide that it should only produce orange cars. And the doctors in neonatal wards definitely aren't going to try to keep the vital functions of all premature babies at a moderate status.

Big-data operations require lots of data, which should ideally be in a structured form (e.g. measurement data from machines or communication metadata such as telephone numbers). However, nowadays, it has also become possible to process data that is less structured or unstructured. Internet giants such as Facebook and Twitter can automatically filter trends or identification characteristics out of sloppily-written user comments, after which they sell the said data to their advertising customers. Certain inaccuracies are tolerated, because the big picture remains recognisable on account of the sheer volume of data. And also because the algorithms are getting better all the time.

Finally, the data revolution has created a situation in which

The world of logic – Turned upside down

Big data can examine large quantities of data and discover correlations that would occur to no human being. These correlations are often quite surprising, since we cannot detect the causes – But the correlations do deal with mathematical certainties. **1** Those who are looking for a used car would be well advised to go for an orange one, but only the algorithm knows why. **2** When premature babies get better after a crisis, the doctors should prick up their ears: Babies' vital functions stabilise before an infection emerges. Paradoxical, but true.



mathematics is making a big comeback, and it is also leading to brand-new professions. "Data scientist and data artist are job descriptions that could be awarded within the framework of a vocational training programme that lasts for a period of two to three years, but thanks to their cross-sectional characteristics, these profiles do not currently exist", explains Holm Landrock, senior advisor of the business consultancy company Experton Group. According to him, a data scientist would need knowledge related to statistics, IT, business administration, psychology, technology and the media. On the other hand, a data artist would need skills related to graphics designing, psychology, mathematics, IT and communications.

Medicine: Revolutionary formulas

At the surface, it looks like big data measures everything by the same yardstick. But those who take a closer look at it will notice that it's often the other way round. In the field of medicine, data analyses can facilitate treatment programmes that are tailored to the individual in question. 'Personalised medicine' represents one of the biggest promises of the future. Today, if you seek medical assistance when you have a cold, the doctor might tell you to take

a few aspirins. However, the fatal flaw in such a scenario is that the doctor's prescription is based exclusively on medical guidelines. For example, the patient might be told to take three tablets a day for an entire week, regardless of whether the patient is a man or a woman, heavy or light, young or old, rugged or sensitive. And regardless of whether the patient starts feeling better after two days or seven days. The dosage is almost always incorrect.

Mayer-Schönberger believes that this standardised approach will soon be rejected: "Each metabolism is unique, and each person reacts to a disease in a different way. In the past, we couldn't tailor the approach to the individual, because we didn't have the data, much less data that had been analysed. This is beginning to change, and the changes don't just affect the realm of high-tech medicine. They will also affect mundane problems such as the dosage of a medicine." The medical appliances in a neonatal ward deliver gigantic quantities of information. However, the datafication of human beings for medicinal and other purposes is no longer limited to exceptional situations like those that arise at the clinic. Health-related data can be measured on a constant basis by fitness trackers in smartphone apps, data armbands and 'wearables' (articles of clothing with embedded sensors). The movement associated with this trend is called the 'quantified self' movement, whose members survey their bodies digitally until the doctor arrives or the data crashes.

If the doctor has the right data, he can consider correlations involving similar cases, as well as the history of the respective patient. Mayer-Schönberger speaks from personal experience: "I have a high cholesterol level, which I normally lower by taking medicines. However, various measurements have indicated that there's nothing wrong with my blood vessel walls. My internist told me that my body was functioning properly in spite of the high cholesterol level. She said that lowering the cholesterol level might throw it out of balance." Big data is supposed to be the best way to handle such scenarios in a customised manner: "We must re-define the word illness. According to the previous definition, a person is considered to be ill when he deviates from the average. In the future, we'll say that a given person is ill when he deviates from his normal condition. My high cholesterol level might not even be considered to be an illness."

Data speaks to students and teachers

This paradoxical individualisation is also the big-data field's greatest triumph in the field of education. Thanks to the fact that this sector is chronically underfinanced, the revolution might take a longer time to get started, but it's definitely on its way. Just as each patient is different, each student also represents a unique case. Nevertheless, for hundreds of years, all the students have been taking the same classes and solving the same problems in the same period of time and the same rooms. Modern educational institutions such as the American Khan Academy place a heavy emphasis on individualisation in their online classes. When a student has a hard time dealing with a certain problem, big data enters the equation: The system goes through its database to try to find educational material that would help the student in question. This could, for example, be a corresponding explanation from the platform's forum that has been rated highly.

The data addresses the students as well as the teachers. Big data tailors the class to each individual student. But the teaching

Big data wins elections

During the 2012 presidential election, the team led by Barack Obama and vice-president Joe Biden focussed on each state in which a tight race was expected. An algorithm generated correlations from the results of previous elections and sociodemographic data. This made it possible to identify and canvass swing voters.



Education: A better lesson for everyone

In comparison with a conventional standardised class, adaptive learning (which is a big-data operation) will be better for each student. If the student is unable to cope with a certain problem, the learning platform notices this. It learns from this feedback and offers customised assistance, which involves solutions that have already helped comparable students.



platforms also learn: They benefit from the feedback provided by the users, and the manner in which they respond to the users keeps getting better. Just as the patient receives a prescription, the student receives a personalised list of classes. If he has a hard time dealing with the Latin translation exercises, the system simply changes the time-table and practises with him. If he is unable to make progress, the platform generates tips or changes the sequence of the material. The digital teacher – or a flesh-and-blood one – follows the pattern associated with Amazon's book recommendations to recommend problem-solving approaches that have been used by other students.

Scoring: The file is always right

The special fascination evoked by big data is the very thing that can also be considered to be a threat: Peeking into a crystal ball. Those who have the right data can fire up the time machine. When should the airline replace a jet engine? The data-history shows which sensor values are suspect. Are you buying unperfumed cosmetics and 20 other items contained in a basket of goods that has been calculated by the algorithm? If you are, it means you're pregnant, and in the middle of the fourth month of your

pregnancy. Does your Facebook page indicate that you listen to Beyoncé and read the Bible? Students with such preferences apparently score the worst scores in their final high school tests, so your application for employment has just been rejected. Do you listen to Beethoven, Radiohead and Nabokov's 'Lolita'? Then you're among the best – when can you start working? Are you sitting in a prison cell and hoping to be released early? We're very sorry, but your crime score is higher than 50 percent, so you will probably get into some mischief again in the future.

People have been making many forecasts of this nature for quite a long time. Everyone knows that the insurance premiums for new drivers are absurdly high. Now the telematics-related tariffs are also part of the equation; the premiums sink when you turn your driving data over to the insurer. Naturally, you will have to pay a higher premium if you do not do this. The same principle could eventually apply to the health sector: No good insurance policy without a fitness tracker.

'Predictive policing' involves predicting when and where the next crimes will be committed. In some cases, the prediction can also cover the identity of the perpetrator. However, the use of such techniques is restricted to the silver screen: They are also used in surveillance citadels like London, Chicago, Salt Lake City, Munich and Nuremberg.

The most dangerous aspect of such 'predictive analysis' is that it prioritises zeroes and ones over the experience and gut feelings of human beings. Such methods undermine freedom of thought and tether us to our past. A person who is using the internet today to do some research on facts related to the legalisation of marijuana might not be able to get a driver's licence tomorrow. All of these decisions are based on correlations, instead of being based on concrete personal factors.

The so-called 'credit scoring' method produces results that are particularly strange: If you want to get a loan from a bank, you are made to lie down on the algorithm's X-ray table. The process usually makes use of historical probability values. Was your data-twin (who was credited with a similar résumé by the algorithm) a somewhat unreliable creditor? Then so are you. End of discussion.

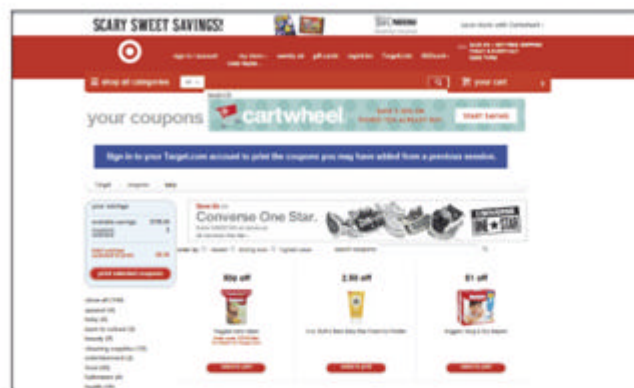
Of course, one shouldn't take the term 'data twin' too literally. The fact that living in the wrong neighbourhood can lead to a negative credit outlook is well-known. However, some payment prophets will even take your operating system, PC and smartphone into consideration. This data can, for example, be detected using the MAC address. In fact, having the wrong Facebook friends can also make it impossible for you to get a loan – even if none of this applies.

The latest craze involves analysing your Facebook relationship status. If your status is 'married', you've lost already. The algorithm doesn't like it when you are too chatty about your private affairs. However, it likes it even less when you don't post personal information at all.

However, the criticism directed at these procedures is getting louder and louder. As an author and a scientist, Viktor Mayer-Schönberger also grapples with the ethical and philosophical questions raised by big data. First of all, he's pleading in favour of digital amnesia and, saying that data should come with an expiry date: "The principle is quite simple: Whenever we save information digitally or forward it to another party, we would tag the information not just with our name and other attributes, but also

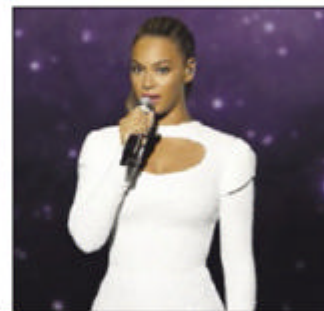
The receipt as a pregnancy test

Pregnant women are particularly susceptible to advertisements, because they re-plan their consumer behaviour. Consequently, the discounter 'Target' has developed an algorithm that identifies expectant mothers based on the purchases that they make – even if they're just in the middle of the fourth month. When the company sent coupons for baby items to a teenage schoolgirl, her father started complaining. As it turns out, the girl was indeed pregnant.



Beethoven beats Beyoncé

An American super-nerd detected a relationship between the test results of 1,350 students and the students' tastes in books and music. Consequently, we now know that those who like Beethoven and Nabokov have fertile minds. There must be something different about Beyoncé.



with a date, which we would select at our own discretion. The information would then be deleted at the end of the storage period. Until then, we would be able to change the expiry date at any time." This approach, which Mr Mayer-Schönberger elaborated upon features an additional advantage: The quality level of the data would also be raised. However, the idea is unlikely to be implemented in practice, since the industry isn't particularly keen on it, and the users are a little too stolid about the whole affair. However, Mr Mayer-Schönberger's second idea looks like it might turn out to be a little more effective. According to this approach, the responsibility for data would not remain with the original owner, but would be transferred to the current user. For the big companies, this means that they would be allowed to use the data and profit from it, but they would also be liable in case the data is misused. This would essentially bury the right to informational self-determination, but the right was already dead anyway.

Ivone Hofstetter, another big data expert who has received legal training, has written a book called 'Sie wissen alles' ('They know everything'), which blasts the sprawling system of 'information

Little guide to big data

A new terminology goes hand in hand with the new world of data. We explain the most important terms related to big data:

Datafication: People, things, moods, structures, movements, achievements – Everything can eventually be converted into quantifiable information. Datafication is key to the future of big data, and we're right in the thick of it.

Data exhaust: Additional digital traces that can, for example, arise when people are running searches on the internet. These traces are associated with mouse movements, accidental clicks, typing errors and rejections of results. To big data, they are raw materials for improving result lists, usability, spelling and everything else that's good for the business model.

Correlation: Describes the relationship between characteristics, events or statuses. Big data can detect intriguing correlations, but the correlations provide no information about cause and effect.

Negative freedom: The (disappearing) right to prevent personal data from being accessed by the government, society and the economic system.

Predictive analytics: Analytical procedure that spots repetitive patterns in data and then uses algorithms to predict future developments – It is now possible to peek into the future.

Blur: Errors (such as incorrect values, incorrect formats and inaccuracies) often find their way into chunks of data.

Small data: Old-fashioned approach towards small chunks of data. The concept also covers random sampling. Unlike big data, small data has to rely on precision. Blurriness is not allowed, since it would make an already coarse image even worse.

capitalism' and the inactive political establishment: "The manner in which big data handles personal data is not consistent with the principles of human dignity; the task of protecting the said principles clearly falls upon the state, which has no time to lose when it comes to setting up the necessary legal regulations. If this is not done as soon as possible, big data will create a situation that will be very difficult to reverse."

The matter at hand can also affect world politics: In the run-up to the 2012 presidential election, Barack Obama's team had enough time to develop a clever strategy, since the incumbent president was obviously known to be a democrat from day one: Jim Messina, Obama's campaign manager, relied on ultra-modern business analytics and hired about 50 data scientists for this purpose. The goal was to win a clear victory in the eight 'swing states, since it was already clear the voters living in these states would decide the course of the election.

Obama's data experts closely examined the individual constituencies in these eight states, and detected correlations between the results of previous elections and sociodemographic data. They could then delineate the respective swing voters and model their statistical profiles. About 100 characteristics helped the algorithm identify the swing voters. Then it was just a question of communicating with these undecided voters, and this was done using everything from e-mail marketing strategies and Facebook to house calls. Obama won seven of the eight swing states and got himself another term in office.

Does big data have an emergency exit?

If big data can dismember the secrecy of the ballot and elect presidents, then we have obviously just seen the tip of the iceberg. Alex Pentland, who is in charge of the Human Dynamics Laboratory at Boston's MIT, wants to analyse societies – he calls it 'reality mining' – and then tune them. If the machine predicts that there's a certain probability that persons or groups could get out of control, the persons in question would receive inducements that would encourage them to change their behaviour. The sociological stimulus-reaction-reward pattern that Pentland is proposing would be a dystopian nightmare even if we ignored the escalation or penalty that is sure to follow. After all, he who optimises on a permanent basis will eventually reach a point at which all people would be identical. Or, in Mayer-Schönberger's words: "The machines will eventually say, 'We've gotten everything we can out of the humans, so let's just go ahead and turn them off.'"


The fear of a totally uniform society has its justification, but human beings do have the potential to be able to use big data in a positive way. Fantasy and creativity cannot be bred using correlations and data models. Mark Zuckerberg (the founder of Facebook) can reasonably be classed among those who pioneered and are profiting from the data revolution, but he was lucky that predictive analytics didn't exist when he started studying at Harvard in 2002. After all, a good algorithm can identify potential university dropouts. If Zuckerberg had been filtered out, he wouldn't have been able to misuse the elite university's infrastructure to work on his epoch-making social media project. Zuckerberg was phenomenally successful precisely because he broke the rules. Would the algorithm have been able to understand that?

Likewise, it was also a stroke of luck for Harvard that the



Professor Viktor Mayer-Schönberger is one of the world's leading experts on big data. His book 'Big Data – Die Revolution, die unser Leben verändern wird' ('Big Data – The revolution that's going to change our world') sheds light on the positive potential and the risks associated with the data revolution

eventual dropout wasn't rejected on the basis of the stochastic theory. The image of the conservative management school received a major boost from Zuckerberg's success story. Today, Harvard is considered to be the new Eldorado for potential internet geniuses, and when it comes to technological research, the university can now compete with Boston's MIT and California's Stanford University.

Not everybody is capable of being the next Zuckerberg, Picasso or Ella Fitzgerald. However, those who use social freedoms, insist on their rights and step out of line every now and then end up changing big data's view of the world. To be on the safe side, maybe we should just let the data speak for itself: Can anyone develop a model and an algorithm that could predict what kind of future big data is going to build? And how we could, if push comes to shove, get rid of it? 

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Bright Lights, Sin City, The Best In Tech

One of the year's biggest trade show proves that the IT industry is not slowing down and innovation is still very much alive and doing better than ever By Jeremy Cheong

It's pretty much the same every start of the year. Websites, social media and newsfeeds gets filled with news from the International Consumer Electronics Show in Las Vegas from 6 to 9 January. While it may seem like the industry has reached a plateau in terms of innovation, CES proved that this isn't the case as there were plenty of impressive and innovative gadgets across all categories. Much like the previous shows, CES once again played host to many of the most well-known brands and visitors got to check out the latest smartphones, tablets, laptops, gaming devices, automotive technology and even child care device.

This year's show was definitely one to remember as it was a record-breaking show with more than 3,600 exhibitors taking up more than 2.2 million net square feet of exhibit space, breaking last year's record of 2.06 million net square feet. The number of visitors was also at an all-time high as more than 170,000 industry professionals, including more than 45,000 from outside the United States were at the show. While the show has always been used to showcase the latest technology,

this year's was even more special as innovators across the show floor also used the show as a platform to showcase technology services that will solve world problems and improve lives.

"This CES vastly exceeded our expectations. The show inspired and likely gave almost every attendee a sense that innovation will provide solutions to a range of global issues from the environment and agriculture to transportation, health and safety," said Gary Shapiro, President and CEO, CEA. "CES is the centre of convergence among content, services and products, combining to create amazing new technologies to improve our lives and entertain us. It's been incredible to see thought leaders from many diverse communities come together for cross industry collaboration."

So without wasting any more time, flip through to read up on what's to come this year from the biggest brands around the world as we bring you our International Consumer Electronics Show 2015 roundup.

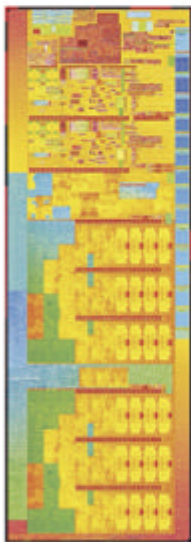


Processors

Intel

During his keynote speech at CES, Brian Krzanich, Intel CEO reveals how Intel is focusing on technology that will bring amazing new experiences to life and how their new innovations will change the landscape of consumer electronics forever.

One of Intel's highlighted technologies is the Intel Curie module, a tiny, button-sized hardware product based on a low-power, 32-bit Intel Quark SE System-on-Chip (SoC) that is perfect for wearable devices. The Curie module packs a myriad of features in a super tiny form factor and is ideal for "always-on" applications such as social media, sports, and fitness activities. Other features of the module include a



Here's the die shot of Intel's new CPU with Iris graphics

384kilobyte (kB) Flash memory, 80kB SRAM, a low-power integrated DSP sensor hub with a proprietary pattern matching accelerator, Bluetooth Low Energy, 6-axis combo sensor with accelerometer and gyroscope and battery charging circuitry (PMIC). This game-changing module is scheduled to ship in the second half of 2015.

Laptops and Ultrabooks are constantly

getting thinner and smaller but they usually still are come in the 13- to 17-inch range. But trust Intel to once



A shot at just how small the Intel Curie module is. It is literally the size of a shirt button

again change all that with a computer that easily fit in your pocket, enter the Compute Stick, a new generation compute-on-a-stick device that's ready-to-go out-of-the-box and offers the performance quality, and value you expect from Intel. The Compute Stick can be pre-installed with

Windows 8.1 or Linux, giving users a complete compute experience on an ultra-small, power-efficient device that is just four-inch long. Under its tiny shell hides a quad-core Intel Atom processor, built-in wireless connectivity, on-board storage and a microSD card slot. With these combined features, you can really compute when, where and how you want.

Of course, what would Intel be if they didn't talk about their new range of Central Processing Units (CPUs)? With that being said, Intel took the veil off their latest 5th generation Intel Core processor family for desktops, Core M processors for notebooks and Atom processor Z8000 series (formerly codename Cherry Trail) for tablets.

First up, let's take a look at the latest 4th Gen Intel Core processors. These new processors are manufactured with Intel's cutting-edge



The Intel Compute Stick allows you to carry your PC in your pocket

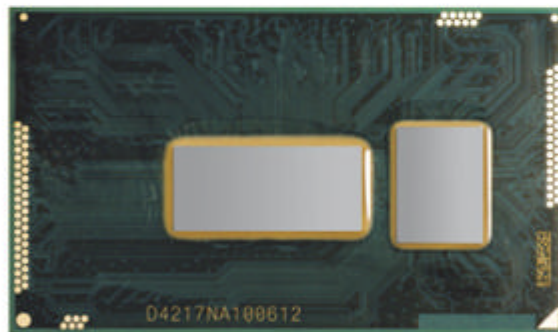
14nm process technology and come with the Intel's now-standard technology of features such as Hyper-Threading, Turbo Boost. What's new is the CPUs power to understand a user's motions, face and voice. For gamers who want intense

level of performance, Intel also has the Extreme Edition of the Core i7 processors.

As for the Core M processor, this new 14nm CPU will enable

manufacturers to create razor-thin and fanless laptops and ultra-fast mobile 2-in-1 devices. The new Core M CPU boasts up to 50percent faster computer performance and 40percent faster graphics

performance compared to the 4th generation Intel Core processor. The other feature Intel highlighted is the fact that it is a true power-sipper and is currently the most energy efficient Intel Core processor in the company's history as it only uses 4.5 watts. It also produces 60percent lower thermal power than the previous generation. Intel will also be releasing a range of Core M vPro processors that is perfect for enterprise



This is the 5th generation Intel Core CPU with Intel HD graphics

and commercial devices as it comes with features that helps protect data, user identities and network access.

Last but not least is of course the latest Intel Atom Z8000 series processor that is designed for smartphones and tablets, intelligent cars, innovative healthcare devices and more. This new 64-bit processor is able to provide users with the best in performance, agility and speed. Tablets equipped with this new processor will have enough power to edit photos and videos and also boasts outstanding battery life and silky smooth multi-tasking.

AMD

As the other leading name in semiconductors, AMD was also at the show and they too wowed attendees with their take on the future of computing. At CES this year, AMD showcased an array of innovations powered by the latest AMD Accelerated Processing Unit (APU), Radeon Graphics Processing Unit (GPU) technologies and embedded designs that push the boundaries of modern computing.

"AMD is contributing to the excitement of CES 2015 with new graphics and computing technology that powers breakthrough consumer and commercial computing experiences of today and tomorrow," said John Byrne, senior vice president and general manager, Computing and Graphics business group, AMD. "This year, we continue to see inspiring developments in virtual reality, Ultra High Definition 4K resolution computing and beyond, computing form factor and intuitive user

and efficient technology."

AMD really knows how to make their presence felt as they picked the perfect place to announce their very first high-performance system-on-a-chip (SoC) and next-generation Mobile APU codenamed "Carrizo", which is expected to hit markets by the middle of 2015. "Carrizo" is designed for both modern consumer computing habits and the needs of IT departments – a platform built for an always-on, media- and productivity-centric lifestyle with support for next-gen APIs such as DirectX 12, OpenCL 2.0, and the soon to be released Windows 10 operating system.

Gaming has always been synonymous to AMD and at CES, the company showcased their very innovative FreeSync technology, which aims helps to improve gaming experience through dynamic refresh rates that are synchronised to the frame rates of AMD Radeon graphics cards and APUs. Partners such as BenQ, LG, Samsung and ViewSonic showcased their range of FreeSync-enabled displays.

Speaking of gaming, AMD also demonstrated exceptional ultra-high-definition (UHD) experiences at 4K resolutions and beyond with the spotlight shining

brightly on 4K gaming using their Radeon R9 graphics and AMD Eyefinity technology, the Apple iMac with 5K



The BenQ XL2730Z is one of the first FreeSync monitors



Apple will also be using AMD Radeon R9 graphics for their new iMac



Here's a look at the impressive features of the new AMD Carrizo SoC designed for both modern consumer computing habits and IT department needs

interface innovation. AMD is thrilled to power the best of these with new generations of our smart, innovative,

Qualcomm

Over the last few years, Qualcomm has also joined the ranks as one of the companies to watch at CES as they tend to have very interesting announcements. This year was no different as they showcased new connected mobile computing experiences that highlight a new level of connectivity and immersive user experiences to consumers on-the-go, in the home and within their vehicles. All these new experiences are made possible by the latest Qualcomm Snapdragon technologies, high-performance LTE-Advanced connectivity and next-generation Wi-Fi.

The first thing that really got people talking was Qualcomm's showcase of the next-generation automobiles which make use of the Snapdragon Automotive Solutions. The technology concept cars used at the show were based on the 2015 Maserati Quattroporte GTS and the 2015 Cadillac XTS and have been customised with the Qualcomm Snapdragon 602A automotive-grade processor, Qualcomm Gobi 3G/4G LTE wireless modems, Qualcomm VIVE QCA6574 Wi-Fi and Bluetooth module and Qualcomm IZat



RGR7640 GNSS module. All these technology combine to provide these cars with features such as visually stunning graphics for cluster and infotainment, enhanced safety features such as lane detection with integrated navigation, intelligent parking assist, collision warnings and much more.

The company also introduced a range of new experiences around 4K and next-generation immersive entertainment. Utilising the Snapdragon 810 processor with integrated next-generation LTE-Advanced modem and Qualcomm Adreno 430 graphics, Qualcomm was able to publicly demonstrate the world's first delivery of 4K content with LTE broadcast technology. The Snapdragon 810 processor is an end-to-end 4K processor with support for both 4K capture and display, along with the latest H.265 and High Efficiency Video Coding (HEVC) compression technologies designed to maximize

bandwidth efficiency. With the Snapdragon 810 processor's recently announced integrated LTE-Advanced Category 9 modem, mobile users can now enjoy peak download speeds of up to 450Mbps over three 20MHz LTE radio channels and have the optimal platform for next-generation 4K LTE broadcast.

Qualcomm Atheros also demonstrated the world's first tri-band wireless solutions for home networking products and media hub solutions. With support for 802.11ad (60GHz), 802.11ac (5GHz and 2.4GHz) Wi-Fi, the new reference design will offer a broad connected experience – providing a whole-home coverage with areas of high-speed, high-capacity wireless for residential gateways, set-top boxes and



These are the two cars used as the technology concept cars for Qualcomm's new automotive solutions

media servers without interference from nearby access points. This tri-band access point will ship in the second half of 2015.

NVIDIA

Just two days before the Consumer Electronics Show, NVIDIA announced the availability of their new Tegra X1 processor, which was described by the company's CEO, Jen-Hsun Huang as a tiny workhorse for smartphones and cars. This next-generation mobile super chip is built on the same NVIDIA Maxwell architecture used in NVIDIA's powerful desktop graphics cards such as the GeForce GTX 980 and boasts one teraflops of processing power. The 256-core Tegra X1 has twice the performance compared to the Tegra K1.

While the Tegra X1 was quite an attention drawer, what really got visitors' attention was the Drive PX platform, an auto-pilot computing platform that is able to process videos from up to 12 onboard cameras to run capabilities providing Surround-Vision,



The Drive CX is used to power things like digital clusters and infotainment systems

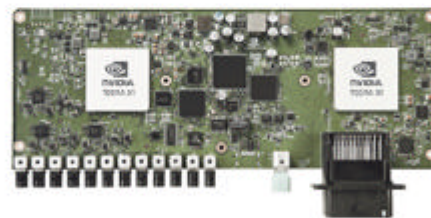
for a seamless 360-degree view around the car, and Auto-Valte, for true self-parking. Alongside the PX, NVIDIA also introduced the Drive CX, a complete cockpit platform designed to power the advanced graphics required across the increasing number of screens used for digital clusters, infotainment, heads-up displays, virtual mirrors and rear-seat entertainment.

"We see a future of autonomous cars, robots and drones that see and learn, with seeming intelligence that is hard to imagine," said Jen-Hsun Huang, CEO and co-founder, NVIDIA. "They will make possible safer driving, more secure cities

and great conveniences for all of us.

"To achieve this dream, enormous advances in visual and parallel computing are required. The Tegra X1 mobile super chip, with its one teraflops of processing power, is a giant step into this revolution."

One of the first automaker to adopt the new platform is Audi and during CES they showed how a driverless car can



The Drive PX on the other hand is an auto-pilot computing platform that is able to process videos from up to 12 cameras

instantly be summoned with the quick touch of a smart watch. Before CES, Audi also made headlines when their self-piloted A7 flawlessly completed the 500+ mile drive on highways from Silicon Valley to the show in Las Vegas.

"With every mile it drives, every hour, the car will learn more and more," said Ricky Hudi, Audi, Executive Vice President for Electrics/Electronics development.



The NVIDIA Tegra X1 processor uses the Maxwell architecture giving it an impressive boost in performance

Smartphones

ASUS

When it comes to large tradeshows, it has become something of a tradition for the Taiwanese tech powerhouse to impress the masses with their products. This won't be the last time you see ASUS appearing here in the list. When it comes to smartphones, ASUS had brought their A-game with the ZenFone 2 and ZenFone Zoom. Both the ZenFone 2 and ZenFone Zoom carry on the tradition of being super affordable as they cost US\$199 (~RM722) and US\$399 (~RM1,449) respectively.



The ASUS ZenFone 2 looks to continue ASUS' promise of delivering high-end smartphones at affordable prices

Despite the very competitive pricing, ASUS have packed both phones with impressive specs that will rival most other flagship devices. Both phones feature a 5.5-inch Full HD display but that's about where the similarities end, other than the design as far as we can tell. The ZenFone 2 is true powerhouse as it is powered by a 64-bit Intel Atom Z3560/Z3580 quad-core processor running at 1.8- or 2.3GHz and will either come with 2- or 4GB worth of LPDDR3 RAM. Internal storage is the standard fare and consumers will be able to choose between 16-, 32- or 64GB. Of course, it'll come with a microSD card slot that supports cards up to 64GB. Other neat features include a 5-megapixel front camera with f/2.0 aperture and wide angle lens, 13-megapixel rear camera with f/2.0 aperture and 5-element, auto-focus lens with dual-colour Real Tone Flash and a 3,000mAh battery with fast-charging technology.

For the smartphone photographer though, you may want to save up for the ZenFone Zoom as this smartphone was designed with you in mind as it comes with a 13-megapixel rear camera with a f/2.7 – f.4.8 aperture, 10-element lens

with 3x optical zoom, optical image stabilisation (OIS), laser auto-focus and dual-colour Real Tone Flash. Besides the impressive rear camera, it also comes with a 5-megapixel front-facing camera with f/2.0 aperture and wide angle lens. As of now, ASUS have only revealed that it will be running on a 2.3GHz Intel Atom Z3580 quad-core CPU, will have 4GB worth of RAM and an internal storage of up to 128GB, no other variants have been announced so far.



For those who love taking photos with their smartphones, the ZenFone Zoom is a device to look forward to

Lenovo

Another major player that never fails to impress is of course the legendary (pun intended) Lenovo, who also made quite the statement with the Lenovo Vibe X2 Pro, P90 and Vibe Xtension Selfie Flash.

While the Vibe X2 was launched not too long ago (in December last year here in Malaysia), Lenovo went ahead and made the device even better as the Vibe X2 Pro now sports a 1.5GHz Octa-Core 64-bit Qualcomm Snapdragon 615 processor instead of the 2GHz Mediatek MT6595 processor. However, RAM and internal storage

remains the same at 2GB and 32GB. Other changes include a slightly larger 5.3-inch display compared to the original 5.0-inch but the Full HD resolution is maintained and the Vibe X2 Pro also has a slightly larger 2,410mAh battery, the Vibe X2 only had a 2,300mAh. Camera wise, the rear camera is still the same 13-megapixel camera but instead of the 5-megapixel front camera, the Vibe X2 Pro now sports another 13-megapixel camera.

Alongside the Vibe X2 Pro, Lenovo also launched the P90, which is designed for power and performance to that enables users

to get more done on their smartphone. The P90 has a large 5.5-inch Full HD IPS display and packs a performance package that consists of a 1.6GHz 64-bit Intel Atom Z3560 quad-core processor, 2GB worth of RAM and 32GB internal storage. If you spend a lot



The Vibe X2 Pro now comes in even more eye-catching colours



The P90 is perfect for those who want a feature packed phone for a decent price

of time doing various tasks on your smartphone, the P90's 4,000mAh battery will be a lifesaver. Other than that, the P90 also sports an advanced 13-megapixel rear camera with OIS and LED flash and a 5-megapixel front camera.

To cater to the selfie crowd, Lenovo also launched the Vibe Xtension Selfie Flash that is a must-have accessory for



The Vibe Xtension Selfie Flash is a must-have for those who love taking selfies

the Vibe X2 Pro. This pocket-sized flash plugs into the phone's audio jack and gives users a quick way to create ideal lighting and shutter sync to deliver brilliant, natural-looking pictures even when in low-light environments. The 80mAh battery is said to be able to capture up to 100 photos on a single charge.

HTC

Many of us expected HTC to see or hear about the next "One" or the M9 but unfortunately, HTC kept mum about it. It seems as though HTC is planning to leave that one for a separate event. At CES however, they unveiled a new addition to their Desire series with the launch of the Android 5.0 Lollipop-based Desire 826. This device will make its way to China first and then to other parts of Asia later. It is expected to arrive in early 2015.

Despite being in HTC's mid-range Desire family, the Desire 816 comes with features and hardware that would make high-end devices blush. Firstly, it boasts a 5.5-inch Full HD Super LCD3 display, is powered by either a 1.5GHz octa-core or

1GHz quad-core 64-bit Qualcomm Snapdragon 615 processor, has 2GB worth of RAM and an internal storage of 16GB. Instead of using the UltraPixel camera for the rear, HTC have placed the 4-UltraPixel shooter on the front while the rear is equipped with a 13-megapixel camera with autofocus and LED flash.

Like most of HTC's smartphones, this one also comes with HTC's BoomSound technology. With the Desire 826, HTC have kicked it up a notch as it now comes with Dolby Audio, giving the phone a more immersive surround sound experience. This LTE-ready device will come in two variants, single-SIM or dual-SIM, depending on the region.



This isn't the rumoured M9 but it is still a very good addition to HTC's catalogue

Acer

Acer has had a pretty decent track record when it comes to smartphones and instead of targeting the high-end market, at CES they introduced a new 4G LTE (Cat 4) ready smartphone that caters to users who are on a budget as the phone is priced at 129 euros (~RM530). The Liquid Z410 is powered by a 64-bit quad-core processor, has 1GB worth of RAM and an internal storage of 8GB. It also has a 4.5-inch display with a resolution of 540 x 960.

For such a budget-friendly device,



The Liquid Z410 is a super affordable 4G LTE ready smartphone

Acer have also equipped the Liquid Z410 with a 5-megapixel rear camera with autofocus and LED flash. As for the front shooter, it is a 2-megapixel camera with an 80-degrees wide angle lens. It also comes with a 2,000mAh battery that is said to be able to last up to 5.5 hours of talk-time or 400 hours in standby.

LG

Sadly, LG hasn't really made its presence felt here in Malaysia but with the recent release of the G3 and G3 Stylus in December last year, we're hoping that they'll make a bigger impact here in Malaysia as they really have some impressive devices in their catalogue. One of their main highlights last year was the G Flex, which received

rave reviews for its design, so it really wasn't a surprise to see the successor of the G Flex appearing at CES.

The G Flex 2 comes with improvements in almost every aspect and now boasts a sleeker and more stylish curve, which is for more than just looks. The G Flex had a 700mm radius curved profile but the G Flex 2 takes it a



Let's hope we get to see the G Flex 2 released here in Malaysia

step further as it has a radius from 400mm to 700mm across the front, back, sides and top to bottom edges. This also makes the phone more ergonomic as the microphone is placed closer to the user's mouth and the slimmed down 5.5-inch screen with curvatures is better for viewing and gripping.

Of course the G Flex 2 isn't all just about looks as it has the performance that enables users to do what they need

with the phone. Under its beautiful shell is a 2.0GHz 64-bit octa-core Qualcomm Snapdragon 810 CPU accompanied by 2GB worth of RAM and 16- or 32GB internal storage. It even supports microSD cards up to 128GB. Powering the phone is a 3,000mAh battery.

Other nice touches include its 13-megapixel rear camera with OIS and laser auto-focus and 2.1-megapixel front camera. Durability is also one of the G

Flex 2's strong points as its cover glass is now 20percent more durable thanks to a special chemical treatment technology developed by LG. Its "Self-healing" back has also been improved significantly as LG have reduced the healing time from about three minutes to just ten seconds at room temperature. This technology helps keep the phone looking pristine and free from dings and scratches.

Alcatel

Unlike the rest of the smartphone makers at the show, who mainly showcased Android smartphones, Alcatel ONETOUCH had something a



The ONETOUCH PIXI 3 will come in various sizes, colours and operating systems

little different up their sleeves with the ONETOUCH PIXI 3, the OS-Agnostic 3G and 4G LTE smartphones. This is one device that truly caters to multiple crowds as it support multiple OS platforms, Android, Firefox and Windows and also comes in a range of display sizes ranging from 3.5-, 4-, 4.5- and 5-inch. To take customisation and personalisation even further, the device comes in nine trendy colours which include Volcano Black, White, Amber Orange, Tango Red, Neon Pink, Laser Yellow, Vivid Green, Sharp Blue and Metallic Silver. Each size comes with a different set of hardware specs ranging from dual-core to quad-core CPUs, 512MB to 1GB RAM and a myriad of storage sizes.

The other device that also made its appearance at CES is the POP 2 series, which also comes in three different display sizes, the smallest being 4-inch,

followed by 4.5-inch and finally 5-inch. All three variants are powered by the 64-bit quad-core Qualcomm Snapdragon 410 processor and is also Cat 4 LTE ready. The POP 2 series also comes with a wide variety of colours and back covers which are changeable.



The ONETOUCH POP 2 will also give consumers plenty of choices

Tonino Lamborghini

Last but not least is a device that was designed for those with quite a bit of spare change. US\$6,000 (~RM21,800) worth of spare change to be exact. With Lamborghini in its name, you would have been crazy to expect any less. If you want a device that you can truly show off, then the 88 Tauri is for you.

Designed using stainless steel and leather, this device truly befits its supercar maker's heritage as it looks like no other Android smartphone we have seen before. Similar to Lamborghini's supercar's the 88 Tauri is also quite powerful under the hood as it is powered by a 2.3GHz quad-core Qualcomm Snapdragon 801 CPU, has 3GB worth of RAM and has a 64GB internal storage and support for microSD cards up to 128GB. To give the phone

the "mileage" it needs, Tonino Lamborghini have fitted in a 3,400mAh battery to it.

This extravagant smartphone also comes with a 5-inch Full HD IPS display protected by Gorilla Glass, a 20-megapixel rear camera with dual 5,500K flash and 8-megapixel camera. Finally, it also boasts a Wolfson sound amplifier, DTS HD Premium Sound technology and stereo speakers.



The 88 Tauri is one very exquisite smartphone that only the 1-percenters can afford

Tablets

Dell

Out of the many manufacturers at the show, not many expected Dell to steal the show when it came to tablets but that is just what they did with their latest Venue 8 7849, which is easily the world's thinnest tablet as it is only 6mm thick and has a near bezel-less display. This tablet sports an 8.4-inch Quad-HD (2,560 x 1,600) OLED display, runs on Android 4.4 KitKat, is powered by a 2.3GHz quad-core Intel Atom Z3580 processor and has 2GB worth of LP DDR3 RAM. At the time of the announcement, it only comes in

one storage size, which is 16GB, this may not seem like much but this tablet supports microSD cards up to 512GB.

One of the other neat features of Dell's latest tablet is that it takes advantage of Intel's RealSense Depth Camera technology. This enables the tablet to create a high-definition depth map that enables measurement, refocus, and selective filters with a touch of a finger.



The Dell Venue 8 7849 is one sexy beast of a tablet inside and out

Lenovo

At CES this year, Lenovo launched a total of 23 devices and two of which were new tablets designed to be superbly budget-friendly and great for first time tablet owners. The two tablets we're speaking of are the Tab 2 A7-10 and Tab 2 A7-30. Both tablets are also very portable as both come in at a weight of 269g and the A7-10 is 9.3mm thin while the A7-30 is 8.9mm thin.

Both tablets also have similar 7-inch displays with a resolution of 1,024 x 600 but the difference is that the A7-10 has an IPS display while the A7-30 has an IPS infinity black display, which allows it to produce sharper text and brighter colours. Another difference is that the A7-30 comes with a 2-megapixel rear camera and 0.3-megapixel front facing camera while the A7-10 only has the front facing camera.



The Tab 2 A7-10 is a great choice for a first tablet

As for performance, the A7-10 and A7-30 are powered by a 1.3GHz quad-core MediaTek MT8382M CPU and have 1GB worth of LPDDR3 RAM. In terms of storage, the A7-10 is only available in an 8GB variant while the A7-30 will come in 8- or 16GB. Both support microSD cards of up to 32GB. The other major



If you want a tablet that you can make calls with, then the A7-30 is the one to go for

difference is that the A7-30 supports 3G, so it can be used to make calls. Both devices are said to be able to last up to 8 hours as both come with a 3,450mAh battery.

Alcatel

Continuing its stream of affordable and 4G LTE ready devices, Alcatel introduced its newest ONETOUCH Pop 10 Android tablet, which is one of the thinnest and lightest 10-inch tablets on the market as it is only 7.9mm thin and weighs a mere 400g.

This tablet features a 10-inch IPS display and is said to be powered by a 1.2GHz quad-core processor and has 1GB RAM. It also has a 5-megapixel rear

camera, 2-megapixel front camera, 8GB of internal storage and a 4,600mAh battery. One of its main draws will definitely be the fact that it can easily be converted into a laptop with a very ergonomic keyboard.



Alcatel's ONETOUCH Pop 10 is a multi-faceted tablet and is ideal for work and play

Toshiba

Finally, in the tablet space, we have Toshiba, a company, which has been quite quiet over the last few months. At CES, they launched two variants of their Encore 2 Write tablets, which is a refresh of the company's Encore 2 tablet lineup from last year. These Windows 8.1 tablets will be available in 8- and 10.1-inch screen sizes and has a starting price of US\$349.99



Seen here is the 8-inch Encore 2 Write with its snap case cover

(~RM1,267) and US\$399.99 (~RM1,449) respectively.

Both these devices are powered by Intel's 1.83GHz quad-core Atom Z3735F processor, 2GB RAM and internal storage of 64GB, which is further expandable up to 128GB using microSD cards. What makes the Encore 2 Write tablets so special is the exclusive TruPen, a "pro-grade" pen with a fine tip and 2,048 levels of pressure sensitivity, enabling sharp strokes and minimising lag for better precision and



This is a tablet for those who love to draw, scribble and write

accuracy. This makes the tablets great for those who love to draw or take down notes by writing instead of typing.

Wearables

Alcatel

Not to be outdone by their competition, Alcatel also showcased their very own smartwatch at CES this year alongside their range of new smartphones and tablets. Their smartwatch, known as the ONETOUCH Watch (of course!) is a slim and premium smartwatch that once again, comes in various styles to suit everyone. The ONETOUCH Watch is available in colours such as dark red/ volcano black, all-white, classic chrome/ dark gray and elegant metal-white. This gadget is made using high-quality materials such as brushed chrome,

micro-textured resin bands and white stainless steel.

The ONETOUCH Watch has a 1.22-inch display and runs on a STM429 chipset. It also has a 210mAh battery that can last up to five days depending on the usage. Unlike other smartwatches that requires a dock for recharging, Alcatel have placed a USB connector in its



No charging dock is needed to charge this smartwatch

strap. Besides the standard features such as receiving notifications and monitoring sleep cycles, calories burned, steps taken and etc., the ONETOUCH Watch also doubles as a multimedia remote control and can be used to control music and even take pictures from their phone from a distance.

Lenovo

As they already have countless devices in almost every product category, it would be silly to think that Lenovo wouldn't move in to the smart wearables device space and at CES, they showed that they are definitely heading in that direction with the Lenovo Vibe Band VB10.

Much like other smart wearables, Lenovo's offering is also shaped like a watch and sports a 1.43-inch E-Ink display with a resolution of 296 x 128. The device can be paired with smartphones running on Android 4.3

and above and also iOS devices. Seeing as it is using an E-Ink display and not an LCD or LED one, the battery life of the VB10 is said to be able to last up to seven days even with Bluetooth turned on. This gadget of course does just what every other smart wearable is able to and that includes receiving notifications (with up to 200 characters), track and monitor fitness levels, find misplaced phones with a push of a button and of course, tell time.



Lenovo's Vibe Band VB10's E-Ink display can be used to display various watch faces

Sony

Sony didn't announce any new smartphones, tablets or smart wearables at CES, they did however showcase a new stainless steel edition of the SmartWatch 3, which is more stylish and classy version of Sony's very first Android Wear device.

The stainless steel edition of the SmartWatch 3 pretty much retains all the same features as the normal edition, it comes with a 1.6-inch Transflective display with a 320 x 320 resolution and

is powered by a 1.2GHz quad-core ARM A7 CPU alongside 512MB worth of RAM and 4GB eMMC storage. Its 420mAh battery is said to be able to last up to two days on normal usage.

Seeing as it is running on Android Wear, users will be able to search for information using their voice, get frequently updated weather reports, travel information, notifications, reminders and commuting information.



A more sophisticated version of the Smartwatch 3

Razer

During last year's CES, Razer launched their very first wearable, the Nabu, which also went on to win a number of awards. This year, Razer announced a newer and cheaper version of their wearable, the Nabu X, which is priced at US\$49.99 (~RM181). Instead of the OLED private message screen found on the original, the Nabu X now sports three coloured LED indicators and vibrations that are used to alert of any notifications received on their smartphone. The three LEDS can be colour-customised to indicate what type of notification is being received.

The Nabu X's sensor module also houses a very precise accelerometer, paired with finely tuned algorithms to ensure the most accurate activity data is



You can get the Nabu X in Black

captured. The Nabu X is also designed for comfort during daily wear and sports a soft-rubber finish, extensive water resistance and one-size-fits-all watch-like-strap. It even has wrist-turn detection and light taps on the sensor module will activate the LED indicators.



Or you can get it in White

Misfit and Swarovski

While most smart wearable designs are now sporting more and more cutting edge and stylish designs, they still look like they're more suited for the geeky male crowd. So for the ladies who are looking at investing in a smart wearable device, they may feel a little left out. But that's about to change thanks to Misfit who has recently strung up a partnership with Swarovski and released the Swarovski Shine. The new Shine collection will be available in three sets ranging from US\$169.99 (~RM616) to

US\$249.99 (~RM903).

The new Swarovski Shine Collection is made up of two new fully waterproof wearables, one with a crystal face and the other being a violet Swarovski Shine that uses a patented "energy crystal" technology that powers itself using sunlight, LED lights or halogens. This is touted to be the first wireless activity



Here's a smart wearable device for those who want a little more bling in their lives

and sleep monitor that doesn't require charging or replacing of batteries. Misfit also mentioned that the new Swarovski Shine collection will work with existing Misfit wearables.

Laptops & PCs

Lenovo

Out of the 23 devices that Lenovo launched during CES, 18 of them were laptops in both the ThinkPad and Yoga series. Most of the products launched were upgrades to their predecessors and

while it may not seem that special, Lenovo have ensured that the upgrades were worth it.

First up, to celebrate 100 million units of the ThinkPad being shipped, Lenovo

launched the latest generation of the ThinkPad X1 Carbon. The third-generation state-of-the-art X1 Carbon is the lightest 14-inch performance notebook in the market as it is a



The new ThinkPad X1 Carbon is super slim

featherweight coming in at only 1.31kg. Despite its very slim profile, the X1 Carbon is still very durable and rugged due to its carbon forged chassis. Upgrades to the X1 Carbon include the 5th Generation Intel Core i7 processors, a 14-inch WQHD (2,560 x 1,440) display, Intel HD GT2 graphics, up to 8GB DDR3 RAM and up to 512GB SSD. Other



The borderless ThinkVision X24 would be great for multi-display setups

noteworthy features include a battery that can last up to 10.9 hours and a variety of connectivity options, which include 4G LTE and 11ac wireless.

Also part of the Think series comes the ThinkVision X24 monitor, a gorgeous borderless, 7.5mm thin monitor. It features a next-generation Neo Blade 23.8-inch panel and has a unique pre-coated metal surface

technology instead of a rear cover that enhances its premium design. This Full HD monitor also has an IPS with a wide 178-degree viewing angle and DisplayPort and HDMI connectivity.

Then there's also the ThinkPad STACK, which combines four ThinkPad accessories into one stacked system for



The ThinkPad STACK is something roadwarriors should think of investing in

greater power and portability. The STACK's rugged interlocking design passes power and data throughout, eliminating the need for multiple cables and creating a customised grab-and-go accessory solution. Users can easily swap the STACK's configuration based on their needs; the STACK can be equipped with a STACK 10,000mAh power bank, access point and Bluetooth speakers and 1TB USB 3.0 hard disk drive.

Lenovo also showcased its new lineup of YOGA convertibles and tablets with new technologies that take flexibility and interactivity to a new level. The new lineup is made up of the YOGA 3 11- and 14-inch models,



The new YOGA comes with new technologies that make it great for any type of user

and the ThinkPad YOGA, which is available in 12-, 14- and 15-inch models. One of the coolest announcements made alongside the YOGA series is the AnyPen technology, which turns normal pens and pencils into tablet writing tools.

Finally, Lenovo also unveiled three new All-in-One Desktops. There's the C40 and C50, which are sleek desktop computers designed to be space-saving and come in at a very affordable price. Both these AIOs are perfect for any home or office. However, the main highlighted AIO had to be the B50 3D Camera that provides users with the ultimate in PC entertainment experience as it features a depth-sensing 3D camera for interactive gestures and expression control. The B50 3D Camera features a stunning Full HD 23.8-inch display with IPS wide-angle viewing, two integrated JBL 3-watt stereo speakers and can be fitted with either an 4th generation Intel Core i5 or i7 processor. It also features NVIDIA's latest GeForce GPU and also up to 16GB DDR3 RAM, a 1TB HDD or hybrid SSD.



Lenovo's B50 AIO comes with a 3D camera that enhances interactivity

ASUS

ASUS was the other company that had plenty to display at a show already filled to the brim with impressive new products. In terms of laptops, the Taiwanese giant lifted the veil off the Transformer Book Chi series, a series of beautifully-engineered, razor-thin 2-in-1

Windows detachables. The Transformer Book Chi series is currently made up of a trio of devices, the T90, T100 and T300. All three are powered by the latest Intel Core M processors and feature amazing performance and also a silent, fanless design.

The T100 Chi is currently the world's thinnest Windows tablet at an incredible 7.2mm, the T90 Chi is the world's thinnest 8.9-inch tablet as it is only 7.5mm thin and the T300 Chi is only 1.65cm thin when docked. Other than being unbelievably thin, all three have a



Here's the 8.9-inch T90 Chi



This is the slightly larger T100 Chi



Despite sporting a 12.5-inch display, the T300 is still super slim very luxurious and sophisticated feel to them thanks to the precision craftsmanship and engineering expertise

combined to realise the seamless all-aluminium unibody design.

One of ASUS' main target market are gamers and during CES, the showcased a range of new Republic of Gamers (ROG) devices that would make any gamer go gaga. One of the main highlights in the ROG department is the new ROG Swift PG271AQ UHD IPS gaming monitor. This 27-inch monitor features a stunning 3,840 x 2,160 resolution, IPS technology, a superb 1000:1 contrast ratio and 300cd/m² brightness. This already impressive monitor also features NVIDIA's G-Sync technology that helps eliminate screen tearing and minimise



Gamers who want the best in picture quality will have to check out the new ROG Swift PG271AQ monitor

stutter and input lag.

While most gamers prefer building their own rig, there are some that just don't want to go through that hassle. If you fall into that category, then the ROG G20 Compact Gaming Desktop will be right up your alley as this machine comes in a compact 12.5-liter case and is powered by a 4th generation Intel Core



i7 CPU and accompanied by an NVIDIA GeForce GTX 980 graphics card for unprecedented performance.

However, if you want something even more compact, then the ROG GR8 console-size gaming PC is what the tech-guru ordered. This ultra-compact gaming PC is equipped with an Intel Core i7 processor and NVIDIA GeForce GTX 750 Ti graphics card. It can also be fitted with up to 16GB DDR3L RAM and a hard disk or high-speed solid state drive. The ROG GR8 will also now come with the professional gamer-grade Gladius mouse and M801 mechanical keyboard.



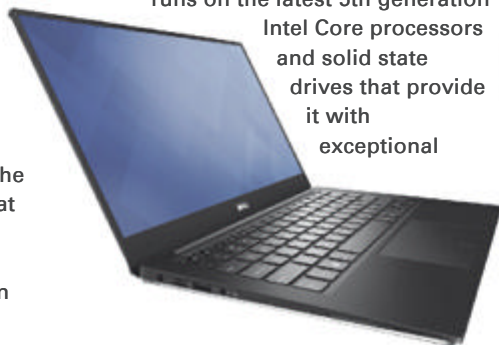
The ROG GR8 now comes bundled with a gaming grade keyboard and mouse

Dell

As one of the leading manufacturers of laptops and desktop computers, Dell looks to continue to impress the masses as at CES, they announced an expanded portfolio of their award-winning devices in the XPS, Alienware, Inspiron and display families.

In the XPS series, Dell showcased the new XPS 13 and XPS 15 notebooks that are designed with the best balance of form and function. The XPS 13 is currently the smallest 13-inch laptop in the world that features a virtually borderless infinity display. This

13-inch notebook also boast up to 15 hours of run time on a single charge and runs on the latest 5th generation Intel Core processors and solid state drives that provide it with exceptional



Dell's latest XPS 13 boasts a battery life that lasts up to 15 hours

performance and responsiveness.

As for the XPS 15, this notebook comes with a 15-inch UltraSharp 4K



The XPS 15 comes with an UltraSharp 4K display making it a good choice for multimedia consumption and creation

Ultra HD touch display allowing it to produce rich, saturated colours and stunning brightness that allows users to see more content and enjoy the finer details in movies, web content and photos.

Ever since they acquired Alienware, Dell has placed quite a bit of emphasis on continuously improving their



The Alienware 17

generally been much thicker and larger than their more mainstream counterparts but the new duo are now 20 percent thinner despite the fact that they feature full-powered performance components without throttling.

Dell's Inspiron family also saw three new standout offerings being added to the list, including the Inspiron 15 5000 series, Inspiron 15 7000 series and the



The Alienware 15 is a notebook that is truly out of the world

gaming line of notebooks. At CES, Dell brought out the latest additions to the iconic gaming notebook family, the Alienware 15 and 17. Both systems pack the latest gaming technologies including optional Intel Core i7 quad-core processors and NVIDIA GeForce GTX 980M graphics. Both are also compatible with the innovative Alienware Graphics Amplifier. Alienware notebooks have



Dell have equipped the Inspiron 15 5000 with Intel's RealSense 3D camera



Inspiron 15 7000



Dell's Inspiron 23 AIO

HP

Back before their troubles started, Hewlett-Packard (HP) was always one of those brands that you could rely on when it comes to innovation and it seems that the company has finally found their groove again as they showcased two new devices that are aimed at reinventing the desktop PC for homes. The duo of devices they showcased happened to be the Pavilion Mini Desktop and the HP Stream Mini Desktop, both powerful and smart desktop PCs boasting performance in a very small and energy-efficient design.

Despite the super compact form factor, the Pavilion Mini Desktop can support processors up to Intel Core i3, up to 8GB

RAM and HDDs with up to 1TB storage. Casual gaming and entertainment will also be no problem for the Pavilion Mini Desktop and it even has dual display support with DisplayPort and HDMI

compatible ports, giving them the ability to stream and access content on multiple screens. Another great thing about the Pavilion Mini Desktop is the fact that it only uses up to 45W of power compared to 250W for a typical PC.

The HP Stream Mini desktop shares pretty much many of the

same features and hardware of the Pavilion Mini Desktop but has some value-added services including a 32GB SSD and 200GB of Microsoft OneDrive Storage for two years. 



HP have truly reinvented the home PC with the Pavilion Mini Desktop



The Stream Mini comes in a very cool cobalt blue to distinguish itself from the Pavilion Mini Desktop

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Intel Platform

Motherboards

Intel DZ77GA-70K
MSI Z87 MPower

Processors

Intel Core i7-3770K
Intel Core i7-4770K

Graphics Processing Unit

MSI GeForce GTX
980 GAMING 4G

CPU Cooler

Cooler Master X6

AMD AMD Platform

Motherboards

ASUS Crosshair V
ASUS A88X-Pro

Processors

AMD FX-8150
AMD A8-3850

Graphics Processing Unit

ASUS Radeon R9 290X

CPU Cooler

Cooler Master Hyper 212
EVO



PSU, Storage & RAM

Power Supply

Cooler Master Silent Pro
Hybrid (1300W)

Storage

Western Digital Black²
Dual Drive
Western Digital My Book
Live Duo

Memory

Kingston HyperX
KHX1600C9D3K4/16GX
Kingston HyperX FURY
HX318C10FWK2/8
Kingston HyperX
Predator
HX430C15PBK4/16

Benchmark Software

Operating System

Windows 7 Ultimate
(64-bit)

Futuremark

PCMark 8
3DMark

Industry Standard Benchmark Tools

AIDA64
SiSoftware SANDRA
Specy
Unigine Heaven

TEST LAB



The Technologica Crux

Happy Chinese New Year to our readers who are celebrating the Year of the Goat! I'm fairly certain that you guys will be happily eating all the good stuff when the celebrations get underway. I, meanwhile, that is to say the team here at CHIP will be looking forward to eating more yee sang than we can care to count.

January has been a relatively quiet month for the tech scene in Malaysia, but the same can't be said overseas as the Consumer Electronics Show just ended earlier in January, while Microsoft made more revelations about their upcoming Windows 10 operating system. Since you guys already made it here, I'm sure you've already read our coverage on those two things.

This month, we have a triple showdown of NVIDIA GeForce GTX 960s from ASUS, GIGABYTE and MSI. They might be similar, but it's interesting to see what little things they've changed to separate themselves from one another. We also have a beast of a gaming notebook from MSI in the form of the GS70 Stealth Pro, and boy is it huge and powerful.

There's more of course, but as always, you're gonna have to flip through the pages and read all about them!



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19 BlackBerry Classic

20 ASUS STRIX Pro

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Ratings

Each product review is rated on a scale of 1 to 5 for different key parameters:



PERFORMANCE : Refers to the efficiency of execution

FEATURES : Rates the abilities and unique characteristics available

DESIGN : Varies according to product. Finished products - form factor and build quality. Hardware components - layout, size and cooling solution. Software - user interface

VALUE : Calculated from the performance and features of the product in relation to the price



CHIP Awards



CHIP Editors' Choice Award

Awarded to products that receive unanimous endorsement from all CHIP editors for its overall brilliance



CHIP Outstanding Award

Reserved for products that combine astute technical performance with good quality and design



CHIP Recommended Award

Given to products that possess singular quality worthy of a recommendation



Noticing The Pro

Xiaomi continues to bring their A-game to challenge their competitors this year with the release of the Mi Note Pro. This new device from Xiaomi has a 5.7-inch 2,560 x 1,440 resolution display and is powered by a 2.0GHz octa-core Qualcomm Snapdragon 810 processor, has a whopping 4GB RAM and has an internal storage of 64GB. This device also runs on the Android 4.4.4 operating system with MIUI 6 on top. It also provides users with a 13MP rear camera with a 6-element camera from Sony and a 4MP front camera. Additional features on this smartphone include a 3,080mAh battery and dual SIM functionality.

Xiaomi Mi Note Pro

Price: US\$599 (~RM2,157)

Contact: Xiaomi

Phone: 1 800 28 1882

Info: www.xiaomi.com/my

Simplicity With Seagate

Business productivity has never been so positively affected with the Seagate NAS Pro. This is one of Seagate's first products to debut with Intel's latest dual-core 1.7GHz C2000 Series Processor, which was designed to perform well in multi-user and multi-dimensional environments. It is also equipped with 2GB of RAM to provide performance worthy of a small office environment. The NAS Pro comes with five essential apps such as Seagate Antivirus, Seagate Surveillance Manager, WordPress, Own Cloud, BitTorrent Sync.



Seagate NAS Pro

Price: RM9,099

Contact: Seagate Malaysia

Phone: 1 800 80 2335

Info: www.seagate.com



Stay Sporty With Rox

Finding a good audio device for sportswear often proves to be a challenge, but with the Jabra Sport Rox Wireless, that challenge is but a mere bump. This device is IP54 certified and it is sweat and stormproof and has even surpassed military weather standards. It gives a comfy fit with its EarGels and EarWings. Audio-wise, it produces amazing audio with its rich Dolby sound with Jabra Sound App and a built-in noise cancelling microphone for easy chatting.

Jabra Sport Rox Wireless

Price: RM469

Contact: Advance Digital Solutions Sdn. Bhd., Ingram Micro Sdn. Bhd.

Phone: (03) 8076 4833, (03) 7952 8084

Info: www.jabra.com



The Apache Reborn

Gamers looking to invest in a gaming laptop these days are really spoiled for choice as MSI alone have plenty of offerings and they recently added the GE62 Apache Pro to their catalogue. This new gaming beast comes with a 15.6-inch UHD 3,840 x 2,160 IPS display and is complemented by a NVIDIA GeForce GTX 970M 3GB GDDR5. It also powered by an Intel Core i7-4720HQ processor, runs on 8GB RAM and has a 1TB SATA 7,200rpm hard disk drive. This device utilises several additional features such as SHIFT, Cooler Boost 3, SteelSeries Engine and Super RAID 2.

MSI GE62 Apache Pro

Price: RM5,499

Contact: MSI Malaysia Office

Phone: 1 300 221 386

Info: my.msi.com

Something For The Middle Class

Samsung broadens their mobile portfolio with a new mid-range device called the GALAXY A5. This device sports a 5-inch HD Super AMOLED display and runs on Android 4.4 KitKat. Built with a 1.2GHz quad-core CPU and 2GB RAM, the GALAXY A5 promises to give users a snappy experience. It also comes with 16GB worth of internal storage space, which is expandable up to 64GB with a microSD card. Users would also not be disappointed with its 13MP rear camera with autofocus and LED Flash and 5MP front camera. Additional connectivity features include Bluetooth 4.0 functions, NFC and Wi-Fi.

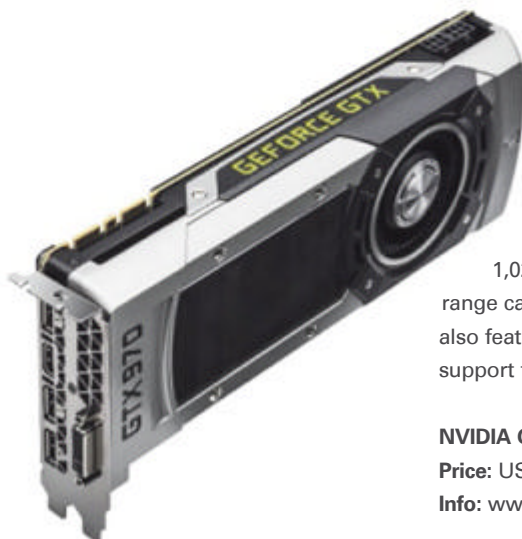
Samsung GALAXY A5

Price: RM1,199

Contact: Samsung Malaysia Electronics Sdn. Bhd.

Phone: 1 800 88 9999

Info: www.samsung.com.my



Time To Refresh

With two out of three gamers still using NVIDIA's older GeForce GTX 660 graphics card, it is about time they get an upgrade for the influx of new games that are arriving this year. Understanding that not all gamers can afford something like the GTX 980, NVIDIA has an affordable alternative, the GeForce GTX 960 that is based on the Maxwell architecture and is powered by 1,024 CUDA cores and can deliver a stunning 60fps on full HD displays. This mid-range card has a core clock speed of 1,127MHz and a boost clock speed of 1,178MHz. It also features NVIDIA's trademarks such as MFAA, VXGI, Dynamic Super Resolution and support for the upcoming DirectX 12 API.

NVIDIA GeForce GTX 960

Price: US\$199 (~RM772)

Info: www.geforce.com

Speed Is The Key

One of the trends we see with Solid State Drives (SSD) these days is the ever increasing storage capacity at much lower price points, gone are the days where SSDs only have 64- to 256GB of space. Silicon Power is also part of this movement as they have the Velox V85, which will give users more than they bargained for. With a maximum capacity of 960GB, users would now be able to keep all their data from their previous drive and transfer them over to the V85. This SSD provides 530MB/510MB/sec Read/Write speeds and has improved durability with its built-in shockproof and vibration proof design. It also comes with Wear Leveling technique functions to provide a longer lifespan and improved durability.

Silicon Power Velox V85

Price: TBA

Contact: Convergent Distribution (M) Sdn. Bhd.

Phone: (03) 2144 1881

Info: www.silicon-power.com



Alpha Photography

The next generation of photography is here with the release of the α7 II, the world's first Full-Frame camera with Optical 5-Axis Image Stabilisation. This camera boasts a 24.3MP 35mm full-frame Exmor CMOS sensor which moves along five axis to prevent camera shake. It can also monitor corrected images in real time on the LCD screen. It utilises the powerful BIONZ X image processing engine for unwarranted detail and natural textures with less noise. Additionally, it also sports a XGA OLED Tru-Finder which provides accurate previewing.

Sony α7 II

Price: RM5,299 (body only), RM6,299 (Kit lens)

Contact: Sony (Malaysia) Sdn. Bhd.

Phone: 1 300 88 1233

Info: www.sony.com.my

Stylish Storage

ADATA recently launched a new external HDD that comes with a very stylish design so you can store your data in style. The HV100 features a sandblasted smudge-free finish and SuperSpeed USB 3.0 interface for speedy file transfers. It also comes with a G Shock sensor Protection to help keep your data safe while sporting a bright blue/red LED indicator to display data transfer status. The HV100 also comes with a three year warranty to support its buyers.

ADATA HV100

Price: RM149 (500GB), TBA (1- & 2TB)

Contact: Achieva Technology Sdn. Bhd.

Phone: (03) 7955 1768

Info: www.adata.com



The Portable Master

Elysium's new PORTO VII, breaks all the rules when it comes to portable speakers as it features Dirac HD Sound, giving it a three-dimensional soundstage, which is something

new to portable speakers. This advanced patented software technology analyses and corrects audio colouration.

Combine that with two full-range drives and a bass driver, it will produce an all-encompassing 2.1 listening experience.

This portable speaker is also equipped with NFC and Bluetooth 4.0 with EDR support to give users the best audio quality possible. Additionally, it also allows you to play music directly from your USB Flash Drive.



Elysium PORTO VII

Price: RM1,599

Contact: Leapfrog Distribution Sdn. Bhd.

Phone: (03) 7803 6703

Info: www.elysiumlab.com

Feel The Thrill

In an age where speed is paramount, Kingston has released the HyperX Predator PCIe Solid State Drive (SSD) which is currently the fastest SSD in the HyperX family as it boasts transfer speeds of up to 1,400MB/s read and 1,000MB/s write. This device is powered by a Marvell 88SS9293 controller while its M.2 factor provides futureproof support with an M.2 PCIe slot. It also comes with the option to attach a Half Height Half Length adapter to allow users to fit it onto newer and even older motherboards.

Kingston HyperX Predator PCIe SSD

Price: TBA

Contact: Amble Action Sdn. Bhd., Convergent Distribution (M) Sdn. Bhd., Ingram Micro Malaysia Sdn. Bhd.

Phone: (03) 7665 3939, (03) 2144 1881, (03) 7952 8188

Info: www.kingston.com



Small Yet Effective

Mobility is key in today's modern business ecology and Dell has released the XPS 13 Ultrabook to meet that exact requirement of modern day roadwarriors. The XPS 13

Ultrabook comes with an UltraSharp Quad HD+ display that boasts 5.7 million pixels and is powered by a 5th generation Intel Core Processor. This device also boast a battery runtime of over 15 hours on a single charge. It also boasts exceptional build quality as it has a scratch resistant Corning Gorilla Glass NBT and is designed with a carbon fiber base which is strong and thin like aluminium.



Dell XPS 13 Ultrabook

Price: RM3,599

Contact: Dell Asia Pacific Sdn. Bhd.

Phone: 1 800 88 0301, 1 800 88 2888

Info: www.dell.com.my



Providing A Data Station

The Network Attached Storage device (NAS) market continues its healthy growth as Synology recently launched the DiskStation DS2415+ NAS server. This server features a 2.4GHz quad-core processor with AES New Instructions encryption engine and it has a RAM module that is expandable up to 6GB with four Gigabit LAN ports supporting Link Aggregation and failover. This device can reach read speeds of up to 451MB/s which includes reading encrypted files. Additionally, this server can be expanded into eight- and 24-bays with Synology's DX1215 expansion units.

Synology DiskStation DS2415+

Price: RM5,399

Contact: Build Technology Supply Sdn. Bhd., Eternal Asia (M) Sdn. Bhd.

Info: (03) 7955 3699, (03) 5613 5600

Forging A New Era

Making its debut at the recent International Consumer Electronics Show in Las Vegas and even picking up "Best of CES" award, the Razer Forge TV is a device that will take Android games to a big screen in the comfort of your living room.

The Forge is powered by a Qualcomm Snapdragon 805 Quad core Krait 450 CPU and is complemented by an Adreno 420 GPU. It runs on Android 5.0 Lollipop and is supported by 2Gb RAM and 16GB storage space. It allows up to four local Bluetooth multiplayer connections while supporting all the newest Android games. Additional connectivity features include Bluetooth 4.1, Wireless 802.11ac 2X2 and Gigabit Ethernet.



Razer Forge TV

Price: US\$99.99 (~RM360)

Contact: Ban Leong Sdn. Bhd.

Phone: (03) 7956 6300

Info: www.razerzone.com



A Digital Powerhouse

Taking cues from its predecessor, the PowerShot SX520 HS digital camera, the Canon PowerShot SX530 HS comes with a 50x optical zoom lens and Canon's Optical Image Stabilisation. This device also features Wi-Fi and NFC capabilities to allow users to share and transfer their pictures immediately to a smart mobile device or computer. It also combines its 16MP High Sensitivity CMOS sensor and Canon's DIGIC 4+ Image Processor to create the Canon HS System for amazing low light performance.

Canon PowerShot SX530 HS

Price: US\$429.99 (~RM1,561)

Contact: Canon Marketing Malaysia Sdn. Bhd.

Phone: (03) 7884 6000

Info: www.canon.com.my

Enter The Matrix

ASUS' latest take on the NVIDIA GeForce GTX 980 graphics card sees the creation of the ROG Matrix GTX 980 which is designed for the hardcore gamer and overclocker. This beast of a graphics card has a base clock speed of 1,241MHz and boost clock speed of 1,342MHz. It also boasts 4GB worth of GDDR5 memory and has a maximum resolution of up to 4,096 x 2,160. To keep the card cool even when under heavy loads, ASUS have equipped it with their patented DirectCU II cooling system with 10mm heatpipes and Cooltech Fan technology for the ultimate cooling performance. For the serious overclockers that dabble in Liquid Nitrogen, it even has Memory Defroster feature that instantly defrosts the card, eliminating cold bugs.



ASUS ROG Matrix GTX 980 (MATRIX-GTX980-P-4GD5)

Price: RM2,799

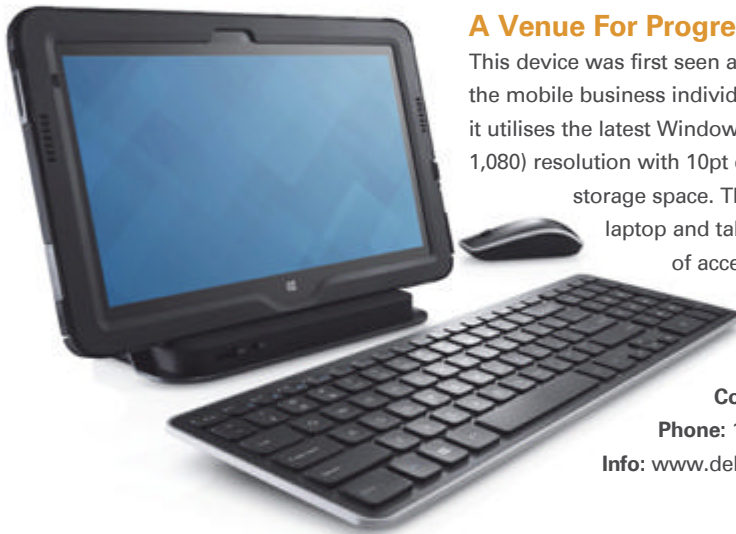
Contact: Build Technology Supply Sdn. Bhd., Servex (Malaysia) Sdn. Bhd.

Phone : (03) 7955 3699, (03) 8024 6688

Info: www.asus.com/my/

A Venue For Progression

This device was first seen at Dell World 2014, the Dell Venue 11 Pro 7000 is a tablet made for the mobile business individual. This tablet comes with the new Intel Core M processor and it utilises the latest Windows 8.1 Pro. It also sports a 10.8-inch TFT Display with FHD (1,920 x 1,080) resolution with 10pt capacitive touchscreen and runs on 8GB RAM with up to 256GB storage space. This device gives users the power to switch between a desktop, laptop and tablet modes for full versatility. It is also supported by a wide range of accessories for full functionality.



Dell Venue 11 Pro 7000

Price: RM2,505

Contact: Dell Asia Pacific Sdn. Bhd.

Phone: 1 800 88 0301, 1 800 88 2888

Info: www.dell.com.my

Be The Champ

GIGABYTE has always been one of the go-to brands when it comes to components that can withstand the rigours of overclocking and with the new X99-SOC Champion motherboard, overclockers will be able to contend for the top spot in breaking world records. This new motherboard is based on the latest Intel X99 Chipset and is best used with Intel's Core i7 Extreme Edition processors and the latest DDR4 RAMs. It has a unique feature through its DIMM design which is built for extreme memory overclocking. Its SMT is mounted for improved signal quality and placed nearer to the CPU socket. This motherboard also has turbo M.2 ports for faster transfer speeds.

GIGABYTE X99 SOC Champion

Price: TBA

Contact: Nation-Tech Sdn. Bhd., Ban Leong Sdn. Bhd.

Phone: (03) 4280 6636, (03) 7956 6300

Info: www.gigabyte.my



Xiaomi Redmi Note 4G

Price RM589
Info Xiaomi
Phone 1 800 28 1182
Contact www.mi.com.my

Specifications

Operating System: Android 4.4.2
Processor: Snapdragon 400 1.6GHz quad-core ARM Cortex A-7
Frequency: GSM 850/900/1800/1900MHz, HSDPA 850/900/1900/2100MHz, LTE 800/900/1800/2100/2600MHz
Screen: 5.5-inch IPS LCD capacitive touchscreen
Connectivity: Bluetooth 3.0, microUSB 2.0, Wi-Fi
Memory: 2GB
Storage: 8GB expandable up to 64GB with microSD
Others: FM radio, 13MP camera (rear), 5MP camera (front), compass, GPS
Dimensions: 154 x 78.7 x 9.5 mm

RATINGS

Performance



Features



Design



Value



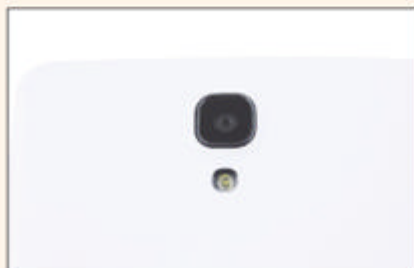
+ Good battery life
 Powerful performance

- No dual SIM support



BENCHMARK RESULTS

3DMark Ice Storm: 5,909 points
3DMark Ice Storm (Extreme): 2,941 points
3DMark Ice Storm (Unlimited): 4,862 points
AnTuTu: 20,947 points
PCMark (Work): 3,020 points
PCMark (Work - Battery): 6 hours 20 mins



A 13 MP camera enables this device to take beautiful pictures with amazing clarity



Expanding Connectivity


The popular Xiaomi is back and this time, it is with the Redmi Note 4G. It comes to no surprise that many have been looking forward to a 4G rendition of the device *By Nicolas See Tho*

The wait has ended for a large number of fans when the Xiaomi Redmi Note 4G was launched at our shores. This time the device gets an upgrade in terms of hardware and the added functionality of the 4G network.

At first glance, the smartphone may remind you of its predecessor the Redmi Note 4, but that would only be the skin deep point of view. It comes in a sleek white body that gives of the look of a metallic casing, like its older models. What remains to be unchanged is the positioning of the power button, and volume controls which are located on the right side with the standard micro-USB being on the bottom. One bone we would pick is the lack of the Dual SIM function makes it slightly less desirable especially in a heavily connected modern landscape.

Feature-wise, it brings the 4G capabilities to the Xiaomi platform which provides download speeds of up to 150Mbps and upload speeds of up to 50Mbps. It also has dual band Wi-Fi capabilities which allows you to surf faster

on the latest wireless standard. Coming back to this device is also the popular MIUI which allows deep customisation for native applications and games.

The Redmi Note 4G has also proved itself to be a powerful device as it had passed all our benchmarks with impressive scores. It also has the capability to handle most mobile games out on the market today. With its beautiful display, watching movies and videos also proved to be an exciting experience. Another thing to note is its battery life is also outstanding whereby it lasted over 6 hours when we tested it using the PCMark Work Battery Test. It also has a beautiful camera which enabled clear and colourful pictures to be taken. 

CHIP CONCLUDE :

Xiaomi has done it again with the Redmi Note 4G, with affordability and powerful performance all packed into one device. For those looking to get a smartphone with the latest tools, this could be the smartphone for you.



A CPU For The Budget-conscious

AMD combines affordability and performance in one processor *By Nazrin Zain*


You'd be forgiven for thinking that AMD has forgotten about its line of FX processors as of late, what with the barrage of new announcements about their APUs and the upcoming R-300 series of GPUs. As it turns out, they have not at all, and we recently received one of their new FX-series CPUs in the form of the AMD FX-8320E processor for testing.

AMD has positioned the FX-8320E, as well as the FX-8350 to be affordable, wallet-friendly 8-core CPUs. This particular line, based on AMD's new Piledriver architecture, is made for users who are looking for good performance levels in a CPU, whilst retaining a low power draw.

The FX-8320E has a maximum TDP of 95 watts, which happens to be one of the lowest power-consuming CPUs in AMD's FX line of processor. This is great news for simple PC builds like HTPCs or mini PCs for both home and office users. Out of the box, the FX-8320E is clocked at 3.5GHz, and the Turbo Clock feature will clock it all the way to 4.0GHz with ease.

Despite being labelled as a budget processor, the FX-8320E did not give us any problems whatsoever, as the operating

system started up within seconds with nary an issue, and software boot ups were speedy as well. Playing back 1080p videos with the processor in place is no issue either, and playing games such as Crysis and Shadows of Mordor were also a joy, so long as you have enough RAM and the appropriate GPU to go with it.

During our benchmarks, we also noticed that the temperature for the CPU didn't really go past 60-70 degrees, which is great, showing that the lower power consumption of the FX-8320E is really working its magic. The benchmark scores we received weren't all too shabby either, and coupled by the real-life performance of the CPU, we have no complaints about that at all. 

CHIP CONCLUDE :

AMD's new affordable FX CPU offering is great, as it is not only wallet-friendly, but performs very well too. Definitely one to consider if you're thinking of making budget PC for work and play, be it for the office or home.

AMD FX-8320E Black Edition

Price RM569
Contact AMD Malaysia
Phone (03) 8316 3512
Info www.amd.com

Specifications

CPU: AMD Piledriver
Socket: AMD AM3+
Clock Speed: 3.2GHz, 4.0GHz Turbo Boost

RATINGS

Performance





Features



Value



 Affordable
 Good performance
 None



BENCHMARK RESULTS

PCMark 8 (Home): 3,672 points
PCMark 8 (Creative): 3,521 points
PCMark 8 (Work): 3,634 points

Acer Aspire V Nitro Black Edition

Price RM3,399
Contact Acer Sales and Services Sdn. Bhd.
Phone 1 800 88 1288
Info www.acer.com.my

Specifications

CPU: 4th Generation Intel Core i7-4710HQ
 2.5GHz, Turbo Speed 3.5GHz
RAM: 12GB DDR3 Dual Channel Memory
Storage: 1TB 5,400RPM SATA Hard Drive and 128GB SSD
Graphics: NVIDIA GeForce GTX 860M w/ 2GB GDDR5 VRAM
OS: Windows 8.1
Display: 15.6-inch Full HD Widescreen LED Backlit IPS display
Connectivity: Wi-Fi
Ports: 3x USB 3.0, HDMI, LAN, audio in/out

RATINGS

Performance



Features



Design



Value



+ Lightweight and stylish
 Powerful performance



- Low battery life

BENCHMARK RESULTS

PCMark 8 (Creative): 4,054 points
PCMark 8 (Work): 4,205 points
PCMark 8 (Home): 3,487 points
3DMark Fire Strike (Ultra): 607 points
3DMark Fire Strike: 3,615 points
3DMark Fire Strike (Extreme): 1,780 points



The Aspire V Nitro Black edition also comes with a HD Camera which makes Skype calls more interactive as users can see each other more clearly



Bringing Sexy Black


Portability and gaming is something that new laptops are trying to incorporate and the Acer Aspire V Nitro Black Edition does not fall short on either one of those aspects *By Nicolas See Tho*

Gamers nowadays are not the same as those of old, who were more than content with a stationary powerful rig to do their gaming. Nowadays it's all about being able to play your high-end games anywhere, anytime, and Acer has provided an outlet for that with their latest Aspire V Nitro Black Edition gaming laptop.

The packaging of the device comes in a simple form, a cloth casing for the unit with a compartment at the side for the adaptor and cables. Like its namesake, it comes in a sleek black paintjob with a full keyboard with numpad that is backlit with a trademark red lighting. Most of its ports are located on its right side, where it noticeably has no USB 2.0 ports and only USB 3.0 ports. Under the laptop is a single Kensington lock outlet and it is also rather light and portable with a slim design profile.

This gaming device comes with a few performance enhancing features such as the Intel Turbo Boost technology and Intel Hyper Threading Technology to activate additional performance whenever needed. Its touchpad also allow the use of gestures which allows users to make use of the touch control to navigate easily and quickly without

hassle. Additionally, it provides amazing audio with its Dolby Digital Plus Home Theater surround sound for complete media entertainment enjoyment.

Getting down to the gritty performance of this machine, our benchmark test on the device shows a powerful gaming machine able to play most of the modern games of today. We tested out new games such as Metal Gear Solid: Ground Zeroes, Titanfall and Crysis 3, and it was able to perform smoothly on all these games on High settings with minimal fidelity issues. The device however have a short battery lifespan when playing games on the go, thus the charger has to be readily at hand. The feedback from the keyboard was also a plus as it was sensitive to all our commands. 

CHIP CONCLUDE :

The Acer Aspire V Nitro V Black Edition gaming laptop is definitely a value for money purchase for those looking for a portable gaming device. Its slim design and simplicity makes travelling and gaming very much possible. However, gaming on the battery may require you to become a wall hugger after every few hours.



The Affordably Powerful GPU You've All Been Waiting For

ASUS combines great performance, low power consumption and affordability all in one package

By Nazrin Zain

It would appear that PC component manufacturers are going full steam ahead with the introduction of NVIDIA's latest graphics card, which comes in the form of the GeForce GTX 960. The GTX 980 and GTX 970 are two of the best GPUs we've seen last year, and not only do they blow the competition out of the water, they're priced very competitively too. In this review, we take a look at the ASUS STRIX GeForce GTX 960 graphics card.

Of the three GTX 960 cards we have for review this month, one noticeable thing about the ASUS STRIX version is that it is the smallest card out of the lot. You don't need to take the card out of the box to see it either as the packaging is also very compact.

Much like the other GTX 900 series cards, the GTX 960 uses NVIDIA's Maxwell processor, and what ASUS has done is that it has overclocked the core and memory clocks to 1,253- and 1,800MHz from 1,127- and 1,753MHz respectively, to squeeze a bit more performance out of the GPU.

At the back, the STRIX GeForce GTX 960 features three DisplayPorts, one HDMI and one DVI-I port. Another interesting thing to note is also that the STRIX GTX 960 card uses a single 6-pin PCIe power port, as opposed to eight-pin ones that are usually used. What this means is that overall, this graphics card consumes less power overall, yet still allows you to play games at relatively high performance levels even at 1080p.

During our game test, when we played Shadow of Mordor, we managed to put most graphics settings on high at 1080p, and the STRIX GeForce GTX 960 ran it with relatively little effort, and was silent throughout the run too. 🇸🇬

CHIP CONCLUDE :

If an inexpensive, yet powerful GPU for gaming that's also compact in size is what you're looking for, the ASUS STRIX GeForce GTX 960 is one that is worthy of serious consideration.

ASUS STRIX GeForce GTX 960

Price RM999
Contact Build Technology Supply Sdn. Bhd., Servex Malaysia Sdn. Bhd.
Phone (03) 8024 6688, (03) 7955 3699
Info www.asus.com/my

Specifications

Core Clock: 1,253MHz
Boost Clock: 1,380MHz
Memory Size: 2GB GDDR5
Ports: 1x HDMI 1.4b, 1x DVI-I, 3x DisplayPort

RATINGS

Performance	👍👍👍👍👍
Features	👍👍👍👍👍
Cooling	👍👍👍👍👍
Value	👍👍👍👍👍

+ Great gaming performance at 1080p
 Cool and quiet
 Affordable

- Noticeable performance decrease when gaming above 1080p



BENCHMARK RESULTS

3DMark (Fire Strike): 6,324 points
3DMark (Fire Strike Extreme): 3,259 points
Unigine Heaven 4.0: 864@35fps



The ASUS STRIX GeForce GTX 960 offers quite a number of video output options, including DVI-I, HDMI and DisplayPort



It also only uses a single 6-pin PCIe power plug to power up

Logitech X300

Price RM189
Contact Ingram Micro Sdn. Bhd., MCL Sdn. Bhd., M-Link Sdn. Bhd., Kaira Technologies Sdn. Bhd.
Phone (03) 7955 8188, (03) 8023 3800, (03) 7728 9003, (03) 7955 3669
Info www.logitech.com/en-my/home

Specifications

Speaker: Stereo
Connectivity: Bluetooth 3.0
Weight: 335g
Ports: 1x Micro-USB, 1x Audio in port

RATINGS

Performance



Features



Design



Value



+ Long wireless range
 Wide area clarity

- Hidden battery life indicator



Taking The Theatre With You

Portable music devices have been around for a long time, but the Logitech X300 takes portable audio to the next level by giving users a device that can fill up the atmosphere


By Nicolas See Tho

The problem with cheaper portable speakers that you can buy from IT shops and night markets is the audio quality that is delivered often falls short, especially when music is drowned out by the environment. The Logitech X300 gives you the solution you need when you are out in the open and would like to share your music with the world.

Right out of the box, the portable speaker provides an easy unpacking experience. With only one microUSB cable to serve as its charging cable, this portable speaker is easy to sync with and comes with minimal setup. It has volume and Bluetooth controls located on its top while the power and the microUSB port are located at the bottom along with the auxiliary port. When using the device however, the small battery light indicator does little to warn users on the level of battery remaining which can be a hindrance if the battery is low.

One of the key features of this portable device is its long range wireless connectivity. After pairing with a

smartphone or tablet, users would be able to bring the speaker with them up to 10 meters away from the source. The device also makes a good call collector with easy access to the volume controls via your smartphone as well as instant call connectivity from the touch of your phone.

One noticeable fact about this speaker is that it delivers powerful and wide audio clarity to its immediate surroundings. This is due to its drivers being designed for a wide ranged sound spectrum. It also has up to five hours battery life on continuous playback which should keep the party going for outdoor events. It is also easy to carry around and setup with minimal hassle. 

CHIP CONCLUDE :

The Logitech X300 portable speaker is something useful for consumers who love the outdoors, and can't bear going out without an audio device to take their favourite tunes with. At its price point, it also proves to be an affordable option to do so.



The Logitech X300 keeps controls simple with just the volume settings and the Bluetooth button on its control panel.



This device sports just two ports, which are the microUSB port for charging and the auxiliary port to connect to other inputs



On The Flipside

ASUS has always had interesting concepts for their convertible devices and the Transformer Book Flip is a little more conventional but is still a good device

By Jeremy Cheong


When it comes to innovation and interesting concepts, ASUS is one of the companies you can bank on as they never fail to impress. Ever since they joined the laptop race, they've put out some really great devices. Now, with more and more users wanting laptops that can be used in different "modes", ASUS has the Transformer Book Flip TP500LN, which is great for those who want a device that is a little more conventional in terms of design.

Design wise, this laptop is quite a looker as it sports a brushed-hairline aluminium finish that gives it a very stylish look. One thing we didn't quite like about this device is its weight, we don't quite mind its size but it is a little on the heavy side. With that said though, it does come with a full-sized keyboard with a numpad. The keys are spaced very nicely and touch-typists will have no issues whatsoever. The other little gripe we have with the Transformer Book Flip is that despite having so much space, there are really not many ports and we would really have liked a few extra USB 3.0 ports.

As its name states, the Transformer Book Flip can be "flipped" into two other modes, namely tablet and stand. This of course gives users different ways to use the tablet. One nice little touch is that when turned into stand or tablet mode,

the laptop automatically disables the keyboard, so you won't accidentally start sending incomprehensible messages or delete important files.

While the display is bright and sharp, it isn't a Full HD display, which is quite a shame as it does come with an NVIDIA GeForce GTX 840M GPU, which is able to run games fairly well.

Last but not least, we were very pleased with the overall performance of the Transformer Book Flip as it produced fairly decent scores in most of our benchmarks. Our review unit was the mid-range variant and for those who want a little more power, they can also opt for the one with an Intel Core i7-4510U processor. Battery life of the device is also very satisfactory as it lasted us about five hours on medium usage before needing a recharge. 

CHIP CONCLUDE :

For the price it is being offered at, the ASUS Transformer Book Flip TP500LN is quite a good deal. We may have some niggles with us such as the display and lack of ports but even with our mid-range variant, we could still do quite a lot of stuff with it. So if you're looking for a laptop that is an all-rounder and attractively priced, this is one to look at.

ASUS Transformer Book Flip (TP500LN)


Price RM2,599
Contact ECS Astar Sdn. Bhd., Build Technology Supply Sdn. Bhd., Servex (Malaysia) Sdn. Bhd.
Phone (03) 6286 8222, (03) 7955 3699, (03) 8024 6688
Info www.asus.com/my


Specifications

CPU: 1.7GHz Intel Core i5-4210U
Graphic: NVIDIA GeForce GT 840M with 2GB DDR3
RAM: 4GB
Storage: 500GB
OS: Windows 8.1 64-bit
Display: 15.6-inch HD (1,366 x 768) Touchscreen
Connectivity: Wi-Fi 802.11 b/g/n, Bluetooth 4.0, 1x COMBO audio jack, 1x USB 3.0, 2x USB 2.0, 1x RJ-45 LAN, 1x HDMI, 1x 2-in-1 SD Card Reader
Extras: VGA web camera, ASUS SonicMaster technology
Dimensions: 380 x 258 x 22cm
Weight: 72.26kg

RATINGS

Performance	
Features	
Design	
Value	

 Good overall performance
 Solid aluminium body
 Other modes are useful
 Nice full-sized keyboard

 Not Full HD display
 A little heavy
 Needs more ports



BENCHMARK RESULTS

PCMark8 (Home):	2,704 points
PCMark8 (Work):	3,629 points
PCMark8 (Creative):	2,756 points
3DMark (Sky Diver):	4,836 points
3DMark (Cloud Gate):	5,301 points
3DMark (Fire Strike):	1,296 points

ASUS Gladius

Price TBA
Contact Build Technology Supply Sdn Bhd., Servex (Malaysia) Sdn. Bhd.
Phone (03) 7955 3699, (03) 8024 6688
Info www.asus.com/my/

Specifications

Tracking Resolution: 6400 dpi
Connectivity: Wired USB 2.0
Sensing Method: Optical Sensor
Weight: 116g

RATINGS

Performance



Features



Design



+ High portability
 Highly customisable

- None



A Mouse That Fits All

Gamers are a fickle bunch, as they require their components to be fine-tuned to suit their games. The ASUS Gladius gaming mouse is one way to appease such gamers *By Nicolas See Tho*



This device allows for easy travelling as it has a detachable cord which makes packing easy




The ASUS Gladius comes with additional Omron mouse switches made to easily replace your worn out switches when they have met their due

When you start gaming after a considerable period of time, you tend to have the urge to customise certain components to best suit your playstyle. The ASUS Gladius gaming mouse provides the required features to help you play at your best for any game.

The mouse comes in a steel grey colour that is designed to lower temperatures to reduce sweaty palms during gameplay and to give it a little more style and grip, it has rubberised sides with a Mayan inspired design. The overall design of the mouse also makes it easy to grip. A unique characteristic of the mouse is that it comes with a detachable cord which makes packing and traveling with this device easy and hassle-free. It has two thumb buttons on its side for quick access. Located on the top of the device is the ROG logo and the DPI shift button.

This gaming peripheral comes with separate left and right buttons which is designed to improve responsiveness. It also comes with the ASUS Armoury which makes customisation easy for gamers which allows unlimited profiles being

created as well as a perfect mouse pad calibration for fine-tuned response with its sensors. This device also allows users to change their switches with easy access to its inner body through a simple four step swapping system.

Performance-wise, this gaming mouse performs wondrously. We tested the device on several types of games such as Metal Gear Solid: Ground Zeroes, Company Of Heroes, and League of Legends, it was able to perform any manoeuvre perfectly with high feedback response. The switches also respond properly as during FPS games like the Metal gear Solid series, we were able to aim and shoot our targets in a fast and efficient pace. 

CHIP CONCLUDE :

Although there is a wide variety of gaming mice out in the market, there are few that provide the comfort and sensitivity that the ASUS Gladius provides. Gamers would find this mouse to be an interesting pick for their gaming needs.



More Yoga To Play With

The latest Yoga is flexible in many aspects *By Nazrin Zain*

Lenovo continues to press forward in what it calls the PC+ era with yet another entry to the Yoga line of devices, this time, with the Lenovo Yoga 3 Pro. Many enthusiasts were looking forward to this device, ever since it was announced, no thanks to the slew of upgrades it was getting, besides being the first notebook to use Intel's new Core M processor.

The Yoga 3 Pro features a big 13.3-inch QHD+ display, which has a resolution of 3,200 x 1,800 pixels, which sounds like overkill, but during our time with the device, we noticed that the Windows 8.1 operating system it was running scaled quite well with the resolution, making it fairly easy to use in both laptop and tablet forms.


As mentioned before, the Yoga 3 Pro is powered by Intel's new Core M processor, the first of its kind, made for ultraportables and convertibles. It also has 8GB of RAM on board, which is great.

As with previous versions of the Yoga, you can prop up the Yoga 3 Pro for use in a number of ways. These include the two typical laptop and tablet mode, as well as tent mode and stand mode.

One main concern many people have about the Yoga is that the hinge may

not last very long. Whilst the previous Yogas hinges were quite sturdy already to begin with, Lenovo went one step further to design what it calls the Watchband Hinge, crafted from hundreds of pieces of aluminium and steel to provide a more stable hold, while allowing the tablet to lay flat at 180-degrees on a flat surface.

As far as computing performance goes, the Yoga 3 Pro does quite well when doing tasks such as document and imaging editing, web-browsing, and watching videos. That said, when running the PCMark 8 benchmark, we can't help but notice quite a bit of stuttering, but this is likely because the Core M does not enjoy being stress-tested too much.

The display on the Yoga 3 Pro is also one of the best we've seen on a notebook, and despite this being a touchscreen laptop, colour contrast and viewing angle are simply impeccable. 

CHIP CONCLUDE :

The Lenovo Yoga 3 Pro is an excellent device for portable day-to-day computing, regardless of where you are. Its 7 hour battery life ensures that you won't need a power brick for at least most of the day. That said, the price might be a deterrent to some.


Lenovo Yoga 3 Pro


Price RM4,999
Contact Lenovo Technologies Sdn. Bhd.
Phone 1 800 80 8575
Info www.lenovo.com/my/en

Specifications

CPU: Intel Core M-70
RAM: 8GB DDR3
Storage: 512GB SSD
OS: Windows 8.1
Display: 13.3-inch QHD (3,200 x 1,800) touch screen display
Connectivity: Bluetooth 4.01, 802.11ac WiFi
Ports: 2x USB 3.0, 1x DC-in with USB 2.0 function, 4-in-1 card reader (SD, MMC, SDXC, SDHC), Micro-HDMI out, Audio Combo Jack

RATINGS

Performance	
Features	
Design	
Value	

 Great for day-to-day work, entertainment
 Excellent display quality
 Decent battery life



 Price

BENCHMARK RESULTS

PCMark 8 (Home):	1,718 points
PCMark 8 (Creative):	1,881 points
PCMark 8 (Work):	2,183 points



The Yoga 3 Pro can be flipped a number of ways, that allows users to use the laptop whatever way they wish

HTC Desire EYE

Price RM1,699
Contact HTC Careline
Phone 1 800 88 9855
Info www.htc.com/sea/

Specifications

Operating System: Android 4.4 (KitKat)
Processor: 2.3GHz quad-core Qualcomm Snapdragon 801
Frequency: GSM 850/900/1800/1900MHz, HSPA 850/900/1900/2100MHz, LTE
Screen: 5.2-inch Full HD
Connectivity: Wi-Fi 802.11 a/b/g/n (2.4- & 5GHz), Bluetooth 4.0, NFC, DLNA, microUSB 2.0
Memory: 2GB
Storage: 16GB, microSD (up to 128GB)
Others: 13-megapixel rear camera, 13-megapixel front camera
Dimensions: 151.7 x 73.8 x 8.5mm
Weight: 154g

RATINGS

Performance



Features



Design



Value



+ Two 13MP cameras
 Good overall performance
 Brilliant display
 Attractively priced
 Water resistant up to 1m



- Non-removable battery
 Physical buttons are a little stiff

BENCHMARK RESULTS

3DMark (Ice Storm): Maxed out!
3DMark (Ice Storm Extreme): Maxed out!
3DMark (Ice Storm Unlimited): 16,542 points
AnTuTu: 40,568 points
PCMark (Work): 3,487 points
PCMark (Work - Battery life): 5h 18min



Instead of struggling to get a perfect group shot with the rear camera, you can now easily do so with the 13MP front-facing camera that also has a 22m wide-angle lens



An EYE For Detail

HTC realises that the selfie and groufie phenomenon is here to stay, which is why they have released a device just for this. But it also comes with plenty of other plus points *By Jeremy Cheong*

Unlike the years before where HTC would place their main focus on their flagship line, the Ones, 2014 saw a change in direction for the company as they instead bumped up their Desire range of devices, which is great for many consumers as not all would be able to fork out over RM2,000 for a smartphone. The Desire EYE came at the tail-end of 2014 but it is a device that should be able to last most users a good year or two before needing to upgrade and here's why.

With a name like Desire EYE, we're pretty sure you can guess what this smartphone excels in and if you thought "camera". Then you're absolutely spot on as the Desire EYE sports two 13-megapixel cameras, one on the front and one on the back. Not only that, both cameras also have BSI sensors, HDR capability and a Dual LED flash. The rear camera is able to capture images with a good amount of detail and with vibrant colours. As for the front-facing camera, it generally outperforms most other cameras but images still have quite pronounce noise and blur especially when photos are taken in darker environments. With that said though, if you love taking photographs, then the Desire EYE won't disappoint.

The device itself sports a 5.2-inch Full HD display and is a little on the tall side but isn't too hard to operate with one hand. While it doesn't look as premium as the

One (M8) due to its fully polycarbonate body, we still found the Desire EYE very appealing due to its dual colour scheme and the polycarbonate makes it a little easier to hold on to the phone. The phone is also IP7X certified, which means it can be submerged into water up to 1m. Our little gripe with the design is the physical buttons are a little stiff.

Performance wise, if you looked at its specifications, you'd know what to expect and the Desire EYE doesn't disappoint as it produced a good set of scores in our standard list of synthetic benchmarks and was snappy all the while throughout our time with. The 2,400mAh battery may seem small compared to many other devices but HTC have done a great job with its optimisation as we managed to get it to last for just slightly more than a day before needing a recharge on medium usage.

CHIP CONCLUDE :

Quite frankly, this direction HTC is currently on should have been the one they took years ago. Instead of focusing on milking their high-end line, they should've released feature-packed devices like the Desire EYE that most consumers will be able to afford. If HTC continues to on this path and with devices like this one, we're sure they'll be back to their glory days in no time.



The Middle Ground Of Gaming


MSI brings back their flair in creating zero noise graphic cards with the MSI GeForce GTX 960 Gaming 2G *By Nicolas See Tho*

Gamer's were at a dilemma when the new NVIDIA 900 series graphic cards were released and there were no middle ground for average gamers who still want to play the latest games. This is no longer the case with the MSI GeForce GTX 960 Gaming 2G graphic card.

The device comes in a red and black scheme that is common for MSI's Gaming series. It has two Torx Fans for cooling, a Super SUPipe for heat dispersion and the usual ports such as a PCIe Express x16 graphic slot, an 8-pin PCI Express power connector, a Dual-Link DVI, one HDMI and three DisplayPorts.

The graphic device has a lot of gaming centric features that helps make it efficient such as the Airflow Control technology that guides airflow onto the heat pipes. It has Zero Frozr technology which allows the fans to stay still when not in use thus reducing noise in low load scenarios. Furthermore, it has all the latest NVIDIA features

such as G-Sync compatibility, NVIDIA Gamestream and NVIDIAameworks.

During our tests with this device, it managed to score high in our benchmark test such as those from Futuremark's 3DMark and Heaven Unigine. We had also tested it on games such as Skyrim, Metal Gear Solid: Ground Zeroes, and Crysis 3 and we were able to get good frame rates for most of the games. It also has a considerable room for overclocking as we managed to get it to 1,416MHz from 1,216MHz, which is a 200MHz increase on a normal cooling system. We're sure it can go up considerably higher under the right cooling conditions. 

CHIP CONCLUDE :

In conclusion, the MSI GeForce GTX 960 Gaming 2G may have a pricetag that is a little steep to midrange gamers, but with the efficiency and stability that is provided by this graphic card, the price may yet prove its worth.

MSI GeForce GTX 960 Gaming 2G

Price RM1,019
Contact AMT PC Distributors Sdn. Bhd.,
 JW Power Marketing Sdn. Bhd.,
 MediaForte (Malaysia) Sdn. Bhd.
Phone (03) 3344 1124, (03) 2148 1307,
 (03) 7960 6868
Info my.msi.com

Specifications

Core Clock : 1,216MHz
Boost Clock: 1,279MHz
Memory Size: 2GB
Ports: 3x DisplayPort, 1x DVI-D, 1x HDMI

RATINGS

Performance	
Features	
Cooling	
Value	
 Improved cooling Quiet	
 None	



BENCHMARK RESULTS

3DMark (Fire Strike): 6,820 points
3DMark (Fire Strike Extreme): 3,471 points
Heaven Unigine: 620@33fps



This graphic card comes with all the necessary ports to run any type of media platform



The Super SUPipe provides additional cooling and improves heat dispersion

ASUS ET20401UK

Price RM1,399
Contact ECS Astar Sdn. Bhd., Build Technology Supply Sdn. Bhd., Servex (Malaysia) Sdn. Bhd.
Phone (03) 6286 8222, (03) 7955 3699, (03) 8024 6688
Info www.asus.com/my/

Specifications

Display: 19.5-inch HD display
Operating system: Windows 8.1
CPU: Intel Celeron J1800, 2.41GHz
GPU: Intel HD Graphics
Memory: 2GB
Storage: 450GB HDD
Ports: 2x USB 3.0, 2x USB 2.0, 1x HDMI, Ethernet, Audio in/out
Others: HD Webcam

RATINGS

Performance



Features



Design



Value



+ Slim design makes it easy to store
 Comes with a full kit

- Sluggish
 Display is lacklustre with pale colours

BENCHMARK RESULTS

PCMark 8 (Creative): 980 points
PCMark 8 (Work): 1,280 points
PCMark 8 (Home): 1,181 points
3DMark Ice Storm (Extreme): 8,655 points
3DMark Cloud Gate : 1,260 points



This AIO also comes with a HD webcam for video calls and video conferencing



Slim And Simple

The reboot of the Intel Celeron has ASUS bringing in their latest AIO, the ASUS ET20401UK. But will it be able to prove itself in our tests? *By Nicolas See Tho*

No longer would you need to find space for your large desktop unit around your house or office thanks to the existence of All-in-One PCs. ASUS has made use of the recently refreshed Intel Celeron processor to bring the consumers an affordable AIO in the form of the ET20401UK.

This very slim device makes it easy for placement, and it also has an adjustable stand to adjust your viewing angles. On its side are a wide range of connectivity options such as USB 3.0, USB 2.0, HDMI, and Ethernet ports giving you all the accessibility required for a productive workstation. Located on the top is a HD web camera as well as the power button on the top left.

This device does not come packed with too many features as it provides just the bare essentials in order for you to start working. Besides that, it can also provide backup power with its built-in batteries during a blackout. It is also fully equipped with a keyboard and a mouse to complete the full set thus allowing you to set up without worry.

If there is one bone to pick with

this device it would be its lacklustre performance. Our benchmark tests shows a below average performance on PCMark 8 and 3DMark thus leading us to believe that this device is positioned for simple and basic tasks. The display also produces colours that are slightly washed out so colours aren't accurate. However, we found that texts were still nice and crisp with little to no bleeding.

This AIO however, comes with certain redeeming qualities such as an audibly loud audio, which is useful when watching a movie or video, as well as a HD camera which allows users to Skype and make video calls with clearer details. While this AIO may not be able to play high-end games, it is powerful enough to support casual games such as League of Legends and Counter-Strike.

CHIP CONCLUDE :

As an entry level device, the ASUS ET20401UK AIO may not have the best features, but it can prove useful for those who just need to run basic tasks and need a slim device to do so.



Auditory Style And Substance

The Elysium Libretto is pretty to look at, and great to listen with *By Nazrin Zain*

Wireless headphones are a dime-a-dozen, with many PC accessory makers providing customers with a wide range of options already. Elysium might be a new name to some of you, but what they have on offer this time is a pair that in our opinion not only looks great, but also ticks many of the right boxes for a wireless headset.


The impeccably-designed Libretto comes in three colours, Red, Grey and Gold. A couple of these may appear to be a bit gaudy to some, but if you're a fashionista in need of some untethered tunes during your commute, you'll definitely be happy to rock these headphones out with aplomb.

The housing of the Libretto is mostly in polycarbonate, with a portion of the driver housing being brushed aluminium, giving it a bit of a polished look that certainly feels very premium. The power, playback and receive call functions share the same button, as do the track skip and volume functions.

The Libretto uses a Bluetooth 3.0 chipset, which allows you to wirelessly stream your tunes from roughly around 10 metres away from the source device without any static or noticeable degrade

in sound quality. The 40mm drivers housed inside the Libretto also provide you with impressive audio quality as well, and a bit punch in the bass department as well.

As far as battery life is concerned, we've managed to get about seven hours thereabouts, which is quite impressive. Elysium also claims that on standby, the Libretto can last up to 100 hours, and it's hard to argue with that as we hardly noticed any reduction in battery power even as we left it on standby overnight and used it again the next day.

In case you do run out of battery, fret not as the Libretto also comes with an auxiliary audio port which allows you to use the headphones as wired headphones. 

CHIP CONCLUDE :

The Elysium Libretto may be one of many wireless Bluetooth headphones out there in the market right now, but its design sets it apart from the competition, and as far as functionality and audio quality goes, it does not disappoint. Definitely one to consider if you're into both style and substance in your headphones.

Elysium Libretto


Price RM449
Contact Leapfrog Distribution Sdn. Bhd.
Phone (03) 7803 6703
Info www.elysiumlab.com

Specifications

Driver size: 40mm
Frequency Response: 20Hz-20KHz
Impedance: 32ohm
Maximum Input: 10MW
Connectivity: Bluetooth 3.0, Auxiliary-in

RATINGS

Performance	
Features	
Design	
Value	

 Good audio quality
 Relatively far wireless range
 Nice design



 None



The control panels at the side of the Libretto allow you to easily pause, play, skip tracks, increase and decrease volume levels as well as answer calls



If the headphones ever run out of power, you can charge it using a microUSB cable, or use a 3.5mm auxiliary audio cable and connect it directly to your media device of choice to use the Libretto as a wired headset

Team Group Elite+ DDR4

Price RM649
Contact M-Link System (M) Sdn. Bhd.
Phone (03) 6143 0888
Info www.teamgroup.com.tw

Specifications

Memory Base Frequency: 2,400MHz
Module Bandwidth: 19,200Mb/s
Compatibility: Intel X99
Capacity: 4GB, 2x 4GB, 4x 4GB, 8GB, 2x 8GB, 4x 8GB
Form Factor: DIMM 288 pin
Voltage: 1.2V
CAS Latency: 16-16-16-39

RATINGS

Performance



Features



Design



Value



Easy fit
Good performance



Price



BENCHMARK RESULTS

AIDA64 Read: 40,035 MB/s
AIDA64 Write: 56,987 MB/s



Becoming The Elite

DDR4 RAMs are now starting to flood the market and for those who are looking for a more affordable kit, the Team Group Elite+ is a viable alternative

By Nicolas

See Tho

Team Group is no stranger to the industry of memory based products, and their latest product the Elite+ DDR4 RAM stick is the perfect example of their expertise within the industry.

The Elite+ RAM comes with a unique heatspreader that is specifically designed to keep the system cool. It has a curved edge which makes it easy to install the RAM sticks. The build of the device gives of a sturdy feel as it has an eight layer PCB that is of the highest quality, which marks its durability. It is suitable for single channel and dual channel architectures.

These new RAM sticks come with some interesting features such as a wide compatibility range with various motherboards. It is also built with JEDEC specifications and has a perfect compatibility with Intel's X99 motherboards. It also saves power up to 20 percent with its 1.2V working voltage. It also comes in capacities of up to 16GB which greatly improves data processing

speed.

Moving on to the performance tests, this device displayed a high level of performance during our benchmark tests with AIDA64. Using this device, software and applications startup in a flash with stable and fast performance, even during multiple tasks open. The RAM was also able to push itself to 2,710MHz from 2,400MHz, which is considerably good. Our read/write test also shows above average scores giving it a solid standing among the other DDR4 models out on the market.

CHIP CONCLUDE :

While the DDR4 market is still relatively new, the Team Group Elite+ DDR4 RAM kits proves to be an exciting new entry into the RAM industry especially for hobbyist who are looking for new components for the latest motherboards. Though at its price range, it would only interest the most experienced of veterans who knows what they want.



The Rare Albino Sabertooth

ASUS' all-white motherboard that's part of the Ultimate Force series isn't just a looker, it performs well too *By Nazrin Zain*

ASUS' line of Sabertooth motherboards has always been about functionality more than looks, with its armored design that aims to provide users with better airflow, for more optimised overclocking purposes. This time around, however, ASUS has added a bit of flair to their latest addition of the series, the ASUS Z97 Sabertooth Mark S, and now, we take a look at how it fares.


The Sabertooth Mark S is a limited-edition motherboard that features what ASUS calls the Arctic Camo Thermal Armor with Flow Valve, which is essentially an all-white Thermal Armor that has a few extra features thrown in.

As far as ports and I/O options go, the Sabertooth Mark S motherboard features four DDR3 DIMM slots, which is capable of supporting up to 32GB of DDR3 RAM in dual channel mode, six SATA III 6.0Gbps ports, two PCIe 3.0 slots and one PCIe 2.0 slot which supports NVIDIA's SLI and AMD's CrossFireX multi-GPU configurations.

At the back are eight USB ports and there are also DisplayPort and HDMI ports, as well as surround sound audio jacks. Not many things in the way of bells and whistles here, as the Sabertooth Mark S is designed for performance and resilience.

The key feature for the Sabertooth Mark S of course is its newly designed Arctic Camo Thermal Armor. This particular thermal armor employs two fans that provide booster airflow for rapid cooling and reversible airflow technology that blows away dust that may have accumulated on your board. The new valves implemented also controls the heat pipe's air contact, which is great for liquid-cooling setups.

The Arctic Camo Thermal Armor also comes with dust covers for the PCIe ports called the White Dust Defenders that protect the PCIe ports when not in use.

As far as performance goes, the Sabertooth Mark S is a great motherboard, as we could push our processor to 4.3 to 4.4GHz without too many problems on air, and we're fairly certain that with a good watercooling block, this can be pushed even further. 

CHIP CONCLUDE :

The ASUS Z97 Sabertooth Mark S may be a limited edition motherboard, but what it offers power users are very nifty cooling features that will certainly allow them to push the threshold of their processor's performance.


ASUS Z97 Sabertooth Mark S


Price Info RM1,188
Build Technology Supplies Sdn. Bhd., Servex (Malaysia) Sdn. Bhd.
Phone (03) 7955 3699, (03) 8024 5155
Contact www.asus.com/my


Specifications

CPU Support: Intel Core Processor
CPU Socket: LGA 1150
Chipset: Intel Z97
Memory Type: DDR3 Dual Channel Memory

RATINGS

Performance	
Features	
Design	
Value	

 Great performance
Thermal Armor keeps air circulation in check
Open to a variety of high-end cooling builds

 Motherboard is quite heavy due to Thermal Armor



The Sabertooth Mark S comes with White Dust Defenders that stop dust from clogging up unused PCIe slots



The back of the Sabertooth Mark S features a metal plate to prevent the motherboard from warping due to use of heavy components like graphics cards and third party coolers

GIGABYTE GTX 960 G1 Gaming

Price TBA
Contact Nation-Tech Sdn. Bhd., SDS
 Distribution Sdn. Bhd.
 (03) 4280 6636, (03) 7788 8700
Phone
Info www.gigabyte.my

Specifications

Core Clock: 1,217MHz
Boost Clock: 1,304MHz
Memory Size: 2GB GDDR5
Ports: 1x DVI-D, 1x DVI-I, 3x DisplayPort, 1x HDMI

RATINGS

Performance



Features



Cooling



+ Extremely silent
 Powerful performance



- High power
 consumption

BENCHMARK RESULTS

3DMark Fire Strike (Extreme): 3,444 points
3DMark Fire Strike: 6,775 points
Heaven Unigine 4.0: 848@75fps



This device comes with all the output settings required for the modern gamer and has a special system for multi-display setups



Gaming On The Extreme

GIGABYTE's take on the NVIDIA GeForce GTX 960 comes with the G1 Gaming tag which comes with a lot of the latest innovations *By Nicolas See Tho*

The competition roars on, with multiple partners placing their stake on the NVIDIA GeForce GTX 960, and GIGABYTE is not backing down either with their GIGABYTE GTX 960 G1 Gaming graphic card.

The device come with the G1 Gaming design theme and the most noticeable design is the triple fan cooling system, which comes in the form of the highly acclaimed WINDCOOLING 3X Cooling. It also sports three display ports, a single port each for DVI-I and DVI-D, and a single HDMI port, thus covering all your input needs.

This rendition of the GeForce GTX 960 has several interesting features such as Flex Display technology which gives players flexibility in multi-display configuration by providing automatic output support. Overclockers would also enjoy the GIGABYTE exclusive OC Guru II which allows you to monitor all the core settings and modify them in real time.

When it comes down to gaming

performance, this device provides the required power. It bulldozed its way through our benchmark tests and it handled the latest games such as Metal Gear Solid: Ground Zeroes, Titanfall and Crysis 3 easily and at the highest settings. Overclocking-wise, it has ample amounts of space for more even after it has been factory overclocked as we managed to boost it by 200MHz from 1,217MHz to 1,417 MHz. Furthermore, it was extremely silent when playing low load applications. This card however does consume more power than the rival GeForce GTX 960 cards.

CHIP CONCLUDE :

When all is said and done, the GIGABYTE GTX 960 G1 Gaming is a powerful graphics card which is able to handle all the most demanding games offered today and in the coming year. Gamer's should consider putting this device on their wish list should they want to upgrade from an older system.



A Thunder from Cooler Master

The Thunder M is great for a wide range of computers

By Nazrin Zain

We've reviewed quite a number of power supply units during our time, and Cooler Master has been kind enough to send us yet another one in the form of the Cooler Master Thunder M 620W. Power supplies are one of the most integral, yet overlooked parts of the PC. It's always ideal to invest in a good one, and in this review, we take a look at what it has to offer.

The Thunder M power supply unit provides a lot of power with its single 12V Power Rail Tackling, and is capable of handling many components, peripherals and accessories that are connected to it, and can even resist overloading up to 48 Ampere.


As you can also see here, the Thunder M's design is semi-modular, with only the 24-pin and 8-pin CPU coolers connected directly to the power supply unit. The Thunder M has two modular PCIe power ports and four molex 4-pin sockets for optical disk drives and hard drives.

To cool down the Thunder M, Cooler Master employs a 140mm fan that spins faster as the temperature of the power supply rises. That being said, as we were benchmarking motherboards and graphics cards, we did not notice any noise emanating from the Thunder M, which is really great, as at heavy loads, power supply fans have a tendency to be very

very loud as they spin at high RPMs.

Unfortunately however, as this is a mid-range power supply unit, it doesn't have that feature where the fan doesn't spin unless power consumption hits a certain level. That being said, this is no big loss, since as we mentioned earlier, the Thunder M is still as silent as can be even when the fan is spinning at higher loads.

This power supply is excellent for medium to high-end computers, especially and allows you to upgrade your components up to a certain degree. For the most part, you'll definitely be able to use this with a single high end GPU, but SLI and CrossFireX will most likely be recommended for mid-range cards at best.

Certain power hungry motherboards with two 8-pin CPU sockets will not be able to fully utilise their full capabilities with this PSU, but otherwise, you can build some pretty great computers with one of these at the core. 

CHIP CONCLUDE :

The Cooler Master Thunder M 620W power supply unit is great to build work and play computers with. It has enough power to be able to build a pretty powerful computer with a single GPU setup, and is an excellent investment if you're just starting out on your PC building journey.

Cooler Master Thunder M 620W





Price RM259
Contact Ban Leong Technologies Sdn. Bhd.
Phone (03) 7956 6300
Info www.coolermaster.com

Specifications

Type: Intel ATX 12V V2.31
Input Voltage: 180-264Vac
PFC: ActivePFC
Efficiency: 85% typical load
MTBF: >100,000 hours
Fan: 140mm
Dimensions: 150 x 160 x 86 mm
Connector: MB 20+4 Pin x 1, CPU 4+4 Pin x 1, PCI-e 6+2 Pin x 4, SATA x 6, Peripheral 4 Pin x 5, Floppy

RATINGS

Performance	
Features	
Design	
Value	

-  Enough juice to power a relatively high end PC
-  Silent
-  Affordable
-  Not for PCs with multiple GPUs and such



The Thunder M features a semi-modular design, which allows you to limit the number of cables attached to the power supply depending on your needs



The 140mm fan cools down the internals of the Thunder M power supply

Seagate NAS HDD

Price RM559
Contact Ingram Micro Sdn. Bhd., Servex (Malaysia) Sdn. Bhd.
Phone (03) 7952 8188, (03) 8024 6688
Info www.seagate.com

Specifications

Storage: 2-, 3-, 4TB
Form Factor: 3.5-inch
Interface: SATA III

RATINGS

Performance



Features



Design



Value



+ Great performance, features
Silent



- Price at higher storage options



The Seagate NAS HDD supports SATA III 6.0Gbps connectivity, if you're not using it in a NAS environment



Building Blocks For Your Personal Cloud

Seagate's solution for your networked storage needs

By Nazrin Zain

Network-specific hard drives are making a breakthrough, as Network-Attached Storage (NAS) devices are now very common, so much so that there are even consumer-grade NAS systems available for purchase now. Seagate is capitalising on this new niche by announcing and launching the Seagate NAS HDD, which promises to work well with these devices.


The Seagate NAS HDD comes in a number of storage options, including 2-, 3- and 4TB. For this review, Seagate sent us the 4TB model, the highest storage model available.

We know what you may be thinking. It's just another hard drive, so what's so special about it? Before we get into the Seagate NAS HDD's performance numbers, the company has added a few bells and whistles that provides users with value-added extras, such as an optional three year warranty and Rescue Data Recovery Service plan that protects you from losing your data against a myriad of problems if it's used in a NAS environment.

On top of that, it also has the Seagate NASWorks firmware which helps keep the NAS HDD silent during operation, keep its temperature low and keep it running longer

for 24x7 NAS operation. Not only that, the Seagate NAS can also be used in large-scale NAS solutions like 8-bay ones.

Onwards to performance tests, the Seagate NAS HDD performs really well. When connected to the PC, we managed to get consistent transfer speeds of around 180-200MB/s, which could've been faster, although the fact that the drive only spins up to 5,900RPM may have something to do with that. This is not necessarily a downside as network drives generally spin slower to improve the longevity.

In a networked environment, the Seagate NAS HDD still performs really well, as networked transfer speeds recorded read and write speeds of roughly 60-70MB/s, while streaming HD and Full HD media revealed no lag whatsoever, except during seeking, which is quite understandable. 

CHIP CONCLUDE :

If you ever find yourself shopping for HDDs for a NAS enclosure, the Seagate NAS HDD may just be what you're looking for. It boasts high capacity storage, excellent performance and is highly optimised to boot.



A Fiery Beast

MSI's giant of a gaming laptop checks off many of the criterias that most gamers are looking for *By Nazrin Zain*

A couple of years back, MSI took the gaming laptop world by storm, and have since asserted themselves as one of the fastest growing brands in the market. The company's uncompromising position on performance above all has seen them push out some of the largest, and most powerful gaming machines money can buy. The MSI GS70 2QE is one of those notebooks.

This mammoth of a laptop features a 17.0-inch display, with a Full HD resolution, is powered by Intel's 4th generation Intel Core i7 processor, 16GB of RAM, as well as 1TB of HDD storage and 256GB of SSD in RAID. Alongside those components is NVIDIA's latest GeForce GTX 970M discrete GPU, which is one of the most powerful in the market right now.


MSI has also been very generous with the I/O ports on the GS70, as it comes equipped with four USB 3.0 ports, two DisplayPorts, one HDMI port and an SD card reader. On top of that, it also features a keyboard by SteelSeries that has coloured LED backlighting, which makes it very pretty to look at.

Despite all of these powerful components built-in, the one thing that we notice about the GS70 is that it is pretty thin. Heavy, yes, large, definitely, but it will still fit in your bag without necessarily taking up a sizeable chunk of space.

Performance-wise, we tested the laptop

with a couple of games, including Diablo 3 and Metal Gear Solid: Ground Zeroes. Both games fared extremely well, thanks to the new Core i7 processor and GTX 970M graphics card.

One concern that we did have is that the area where the cooling fans are located can get very hot when you run games for a while, although to counter this, MSI has implemented a system called SHIFT, which allows you to limit the GPU frequency so that it runs at pre-set temperatures. To access this feature, you can either use the keyboard shortcut Fn+F7 or use the Dragon Gaming Centre software.

Whilst performance is excellent, the GS70 does suffer a bit from a couple of expected setbacks. First of which is battery life. Regardless of which SHIFT mode you use, the laptop will run just over two hours on battery at most. So if you're looking to do a spot of gaming when travelling with the GS70, always remember to bring the power brick with you. The other issue is that when gaming, the fan has a tendency to be a bit noisy, and is very noticeable when gaming. 

CHIP CONCLUDE :

The MSI GS70-2QE Stealth Pro is a beast of a gaming notebook. If money is not an issue, this is definitely one of the best machines for the job out there.

MSI GS70-2QE Stealth Pro

Price RM7,299
Contact MSI Malaysia Office
Phone 1 300 22 1386
Info my.msi.com

Specifications

CPU: 4th Generation Intel Core i7-4720HQ
Memory: 16GB DDR3L up to 1,600MHz
Storage: 256GB Super RAID 2 SSD, 1TB HDD
Graphics: NVIDIA GeForce GTX 970M
OS: Microsoft Windows 8.1
Display: 17-inch Full HD (1,920 x 1,080) anti-glare display
Connectivity: WiFi 802.11ac, Bluetooth 4.0
Ports: 4x USB 3.0, 1x HDMI 1.4b, 2x Mini DisplayPort

RATINGS

Performance



Features





Design



Value



 Great specs, performance
 A lot of performance-enhancing features

 Price
 Gets hot and noisy when gaming for a certain period



BENCHMARK RESULTS

PCMark 8 (Home):	3,614 points
PCMark 8 (Creative):	3,432 points
PCMark 8 (Work):	3,821 points
3DMark (Fire Strike):	5,825 points
3DMark (Fire Strike Extreme):	2,762 points



MSI also has decked the laptop with a variety of I/O ports for ease of use

BlackBerry Classic

Price RM1,588
Contact Brightstar Corp Malaysia,
 BrightPoint Malaysia
Phone (03) 7960 4877, (03) 9274 6000
Info www.blackberry.com.my

Specifications

Operating System: BlackBerry 10 OS (10.3.1)
Processor: 1.5GHz dual-core Qualcomm 8960
Frequency: GSM 850/900/1800/1900MHz,
 HSDPA 850/900/1900/2100MHz, 4G LTE
Display: 3.5-inch (720x720) LCD Touch Display
Connectivity: Wi-Fi a/b/g/n, Bluetooth 4.0 &
 EDR, microUSB 2.0, 3.5mm Stereo
Memory: 2GB
Storage: 16GB
Others: 8-Megapixel Rear Camera,
 2-Megapixel Front Camera
Dimensions: 131 x 72.4 x 102mm
Weight: 178g

RATINGS

Performance



Features



Design



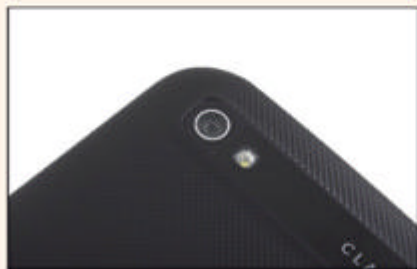
Value



+ Responsive keyboard
 Decent battery life
 Solid build quality
 Good display



- Trackpad is unnecessary
 Keyboard is a little cramped
 Just so-so camera



The 8-megapixel camera can't really compete with what many Android devices have these days, but it does take photos with a good amount of detail and accurate colours in well-lit environments



Blast From The Past

While the new BlackBerry Classic may look old-school, it does come with a slew of new-age upgrades that will satisfy most hardcore BlackBerry users

By Jeremy Cheong

At one point in time, BlackBerry produced some of the best smartphones money can buy. However, with the rapid change in the smartphone landscape and consumer demands, they have now become producers of smartphones for a very niche market, the hardcore CrackBerrys. Which is where the BlackBerry Classic comes in, as it harkens back to one of BlackBerry's most well-loved devices, the Bold 9900.

The Classic was released in Malaysia with little fanfare but we're sure most BlackBerry users were happy to see a new device. Much like previous BlackBerry devices, the Classic has a very premium and solid build as it has a stainless steel edge that surrounds the phone and a rubberised and textured back that makes it a pleasure to hold and use with one hand.

In terms of display, the Classic comes with a 3.5-inch 720 x 720 resolution screen, which is bright, produces accurate colours and sharp texts, which is what most BlackBerry fans would want. However, if you're expecting to play games or watch movies, then it's better if you look at devices with a full touchscreen. Speaking of touchscreen, the Classic's is very responsive and smooth so no complaints there.

Unlike the slightly weirder design of the Passport's physical keyboard, BlackBerry have stuck with their very "classic" design, which is great as the keyboard is a breeze to type on and easy to get used to, even if you're now a pro with touchscreen keyboards. We felt it was a little cramped at first but after a while we were typing away just fine with minimal errors.

As for performance, unlike Android devices that have now gone up to using eight-core processors, BlackBerrys are still fine even with a dual-core CPU. The Classic was extremely zippy and there was no lag whatsoever. Battery life is also something the Classic excels in as it managed to last us more than a day on moderate usage. But of course, when we say moderate usage for BlackBerrys, that means replying emails, messages, texts, browsing the web and taking a few calls.

CHIP CONCLUDE :

As we mentioned at the start of the review, while the BlackBerry Classic has a lot of plus points going for it, it'll probably only attract hardcore BlackBerry fans. However, if you've been looking to go back to a device with a physical keyboard, then the Classic is quite a good choice.



Gaming Like A Pro


ASUS is fast making a name for itself as one of the top-choices for gaming peripherals and with products like the STRIX Pro gaming headset, it isn't hard to see why *By Nicolas See Tho*

Gamers were always a type of connoisseur when it comes to audio peripherals as part of their continued effort to improve gaming experience. The ASUS STRIX Pro makes it easy by giving gamers a headset that can be played on all platforms.

Fresh from the box, the first thing one would notice is the sheer size of the headset. This huge headset is tinted with an orange design with two foldable ear cups which are as comfortable as they come. Within the packaging are a boom microphone and a smartphone adaptor cable. It also has a separate PC attachment kit with a sturdy volume control. A few things one would have to note are the noisy frames that can be a disturbance to others as it creaks a lot during movement. Its size is also a problem when it comes to packing for road trips.

This big device has plenty of features that prove themselves useful for any type of gamer such as a multi-platform capability, whereby you can connect with a PC, PS4, Smartphone and even a tablet with its wide range of connectors. Its

USB connector box, comes with a built-in Environmental Noise Canceling which reduces environmental noises by up to 90 percent which makes it easy for you to talk to your teammates without the distracting noises.

Using this device for gaming proved to be an enjoyable affair, as it provides crisp and powerful audio performance. The audio direction is clearly discernible and the bass is strong but not overpowering. It does make a good theatre headphone as well when it comes to movies as it provides a roomy studio audio surrounding. During multiplayer games, the attachable microphone boom makes conversations easy and clear especially with the built-in ENC. 

CHIP CONCLUDE :

As an all-round gaming headset, the ASUS STRIX Pro is a worthy option. While there are no pricing available yet, you can expect the headphones to be within the mid-range area which would make it accessible for most gamers.

ASUS STRIX Pro

Price TBA
Contact Build Technology Supply Sdn. Bhd., ECS Astar Sdn. Bhd.
Phone (03) 7955 3699, (03) 6286 8222
Info www.asus.com/my/

Specifications

Driver: 60mm
Impedance: 32 Ohm
Frequency Response: 20 ~ 20000 Hz
Connector: 3.5mm connector Audio/mic combo, 3.5mm connector Audio/mic separate, 3.5mm connector unique 5-pole
Cable Length: Braided fibre cable (headset cable 1.2M + control box 1.5M = 2.7M (Max.)
Weight: 320g

RATINGS

Performance



Features




Design




Value



 Comfortable ear pads
 Powerful audio
 Compatible with multiple platforms



 Bulky
 Noisy frame



This headset comes with a USB connector box which serves as the hub for multiple connectors and it also provides a built-in ENC system



For clearer vocal transmission, this device comes with an detachable mic boom for easy communicating

THINK

The Incredible Distracted Man

Forget all the hype from the Consumer Electronics Show and the latest buzz on wearable tech, a tiny smartwatch landed on my wrist and showed me that the future is now By Tim Lee

It's not an Android-based Samsung GALAXY Gear, LG G Watch or a Moto 360. My favourite tech toy/tool to ring in the new year is an original Pebble smartwatch. For a bit over RM300, it's a steal for what it is – a gentle introduction to a world where data isn't just viewed, it's worn and felt.

The original Pebble isn't much of a looker but it gets things done. Unlike its all-metal Pebble Steel cousin, my watch's black plastic frame looks like a 1980s Casio stripped of all branding and sanded down to a dull matte.

The tough little thing is water-resistant down to 30 meters so showering and swimming with it isn't a problem. The grayscale E-paper LCD is always on and perfectly readable in bright sunlight or at night with the backlight on. There's no touchscreen so all UI interaction is done through buttons on the side, a bit Casio-y again.

There's no microphone, camera, Wi-Fi or a cellular radio, only a Bluetooth link to a smartphone. The huge upside to all this is stellar battery life – I've managed four days on a single charge with heavy usage. The typical Android Wear device can't even make it through a day and Tim Cook, Apple's head honcho, advises potential iWatch buyers to expect daily charging as normal.

So what exactly do I use a smartwatch for? After all, a dumb analogue or digital watch lasts for years on a single battery but then again, you can't change the watch face on the fly. I'm usually rocking a stylish analogue face at work but I switch to a geeky, Star Trek LCARS-style display once I leave the office.

The Pebble shines as a notification terminal when continually pulling out your smartphone to check new emails is a distracting social faux pas or worse. On the latest developer firmware and with the beta Pebble app loaded on my Android phablet, I get phone call notifications, SMS and messages from third party apps like K9 email, WhatsApp and WeChat beamed straight to my wrist. Canned responses like "I'm busy" or "I'm on the way!" are a button press away if I can't reply on the phone


immediately.

I can even get turn-by-turn directions from Google Maps on the watch. Discreetly looking at your watch for directions is less likely to make you a pickpocket's target than walking around with a phone in front of your face. The built-in accelerometer and magnetometer are used for compass and fitness apps like Steps for tracking my running pace and Sleeper to track my tossing and turning in bed. Watch apps can also use the phone's GPS to find my location and show the weather forecast.

It's possible to get really geeky by integrating Pebble notifications with Tasker rule-based automation on Android to display and control pretty much everything on the phone. The battery drain from the phone constantly talking to the watch through Bluetooth amounts to an extra ten percent, a negligible amount for me. The Pebble also disrupts phone connections to some car handsfree units so it might not be a good device if you're constantly talking on the phone while driving.

I initially bought the Pebble on a whim. After living with the Pebble for a few weeks, I think it's both distracting and liberating. The product philosophy mimics the original Palm organiser – a mobile accessory that does a few things well to complement a PC, or in this case an accessory to a smartphone instead of being a shrunken wrist computer. I like being able to glance

at my wrist to see if a phone call is worth answering or if an email needs immediate attention, but I feel overwhelmed when a bunch of chat messages flood in and set the watch vibrating madly. The current software treats all notifications as equal; I've used third party notifications apps that have per-app customisation but they're too buggy for normal use.

Maybe the future will be full of people talking to their wrists or staring off into middle distance as they view the world through personal video displays. A good thing or bad, only time and society's acceptance will tell. 



GEEKMOMMY

Smart Parenting Gadgets



This year's Consumer Electronics Show in Las Vegas saw gadgets derived from our everyday household products. The underlying theme seems to focus on connecting humans. Tech industry giants would target the multi-billion dollar market around the smallest human – babies! Here are some interesting gadgets for parents of little ones to have a bit more peace of mind *By GeekMommy*

Smart Baby Bottle

Before you start imagining a bottle that could self-wash and sterilise, this is not that type of bottle. The Baby GIGI is a smart baby bottle holder that helps keep track of the amount of liquid before and after a feeding. The Bluetooth-enabled bottle allows you to keep a log of a baby's feeding time and how long it took.

If the bottle is held at a wrong angle and therefore allowing more air in instead of liquid, that could lead to colic and indigestion; Baby GIGI will send off signals via the LED indicators. I think it would be great if the prototype bottle holder could also keep the milk warm at the right temperature.



Patch Thermometer

Blue Spark Technologies has developed a patch that can keep track of your baby's temperature for up to 24 hours. The disposable TempTraq thermometer is placed on your child's underarm and it is able to send information to a mobile device to alert parents if the child's temperature goes up when they have a fever. You can also make notes when medicine was given and even send a chart to your doctor. This is a great device to have when parents do not want to wake up a sleeping child to take their temperature every hour.



It is currently pending FDA review but the benefits go beyond childcare. It could also be used in hospitals so that nurses don't need to disturb a patient to take their temperature every few hours.

Socks Monitor

Bringing home a newborn is a nerve-wrecking experience and paranoid parents would actually check the baby's breathing every hour while they are asleep. The Owlet socks is the answer to your sleepless nights as it is able to monitor your baby's vital signs such as heart rate and oxygen levels using a technology called the "Pulse Oximetry" that shines light through a baby's foot.



Smart Pacifier

The Pacifi smart pacifier by BlueMaestro is able to measure and send temperature data to a smartphone or tablet. It also has a tether capability that sends an alarm once your child has moved out of range. And if your child drops the pacifier, you can turn your smartphone's GPS to show where it is located on a map. Once you are nearby, you can activate a buzzer so that it can beep for you to find it. 📶



Geek Mommy tries to makes sense of the tech world for the less techie while managing a household, a job and keeping a toddler busy. More of her musings at <http://geekmommy.info/>

TOUCH

Marvel At These Apps

Over the last few years, Marvel Comics has become quite a household name as their intellectual properties now go beyond comics and even those who were never familiar with the comics know some of the more popular heroes. Besides the blockbuster movies, TV series and cartoons, Marvel also has a slew of smartphone and tablet apps and games that most of their fans would already have on their devices, but nevertheless, just in case you miss out on any of them, we'll highlight them here for you *By Jeremy Cheong*

Marvel Unlimited

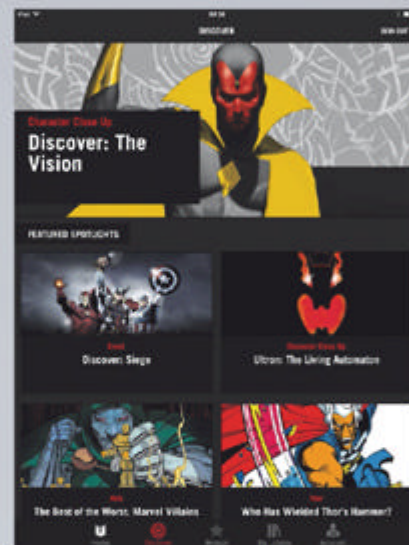
Price: Free

Platform: Android, iOS

Developer: Marvel Comics

A person who claims to be a true Marvel fan should be punished if they don't already have this app on their phone. While we agree that Marvel does have great movies, they're impressive library of comics is even better. With the Marvel Unlimited app, members gain access to over 70 years of Marvel's greatest comics, which is easily over 20,000 issues. So if you ever wondered if the movie version of X-Men: Days of Future Past played out exactly the same way as in the comics, then you'll be able to find out. Heck, you will even be able to get a hint of what's to come in Age of Apocalypse.

Besides just the seemingly never-ending list of comics that will keep you occupied for days, months and even years, the app comes with a few nice touches such as the Smart Panels technology, which lets you read the comic from a panel by panel manner, which of course gives you a closer look at the art and also maybe spot some Easter eggs in the background. Other than that, the app constantly gets new updates such as the most recent being Streaming Comics, so that you don't have to wait for pages to load.



Spider-Man Unlimited

Price: Free (with In-App Purchases)

Platform: Android, iOS, Windows Phone 8, BlackBerry

Developer: Gameloft

Ever since the success of the Temple Run game series, many other game developers have also created games in that same vein. Unsurprisingly, Gameloft had to go and one up everyone else as they gained the rights to use the "witty wallcrawler" in an endless-runner styled game. The game of course puts you in the red and blue spandex of Peter Parker's alter-ego as you race through the game to take down the Sinister Six. What makes this game really fun is the storyline, where the Sinister Six have managed to gather versions of themselves from different "multiverses" to try and take over the world. With the help of S.H.I.E.L.D., Spidey and players also gain access to the various spider-men (and women) that have existed.

One of the best things about this game is the hand-drawn cel-shaded art style, which every comic book fan is sure to love. Much like most endless runner games, players have to direct Spidey on three lanes, avoid obstacles and also knock out baddies. The game is also constantly updated with new events, with different objectives and if players top the leader boards, they get ISO-8 (in-game currency) and also a rare variant of Spider-man.

Marvel Puzzle Quest

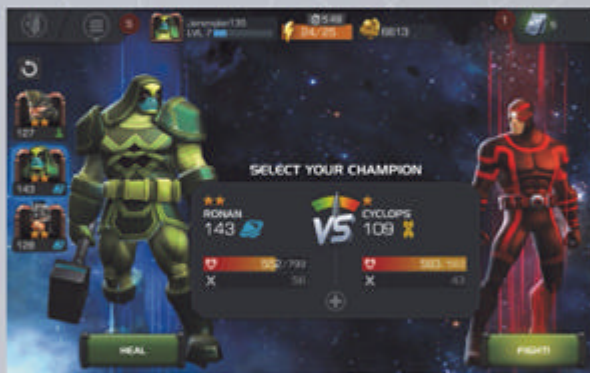
Price: Free (with In-App Purchases)

Platform: Android, iOS

Developer: D3Publisher

While many have not played Puzzle Quest before, we're sure most are familiar with games like Candy Crush and Bejeweled. The Puzzle Quest series is essentially a match-3 puzzle game but it also combines elements of role-playing games. So instead of just having to complete a level by filling up a meter by matching gems in a set number of time, gems are now used to perform attacks and are also stored for special moves. The original Puzzle Quest was based in a fantasy setting but now you can take all your favourite Marvel superheroes to defeat their arch-nemesis.

Like most match-3 puzzle games, Marvel Puzzle Quest may seem easy at first but it is really hard to master as the difficulty of each challenge ramps up pretty quickly. So players will have to create the best team of heroes, level them up and gain new skills to face each new challenge. Much like Spider-Man Unlimited, this game never really gets old as there are constant new updates and events for you to take part in. For comic book fans, you'll also be happy to know that the game's story is written by Marvel veterans Frank Tieri and Alex Irvine.



Marvel Contest of Champions

Price: Free (with In-App Purchases)

Platform: Android, iOS

Developer: Kabam

Taking a page out of DC's mobile version of Injustice: Gods Among Us, Marvel's Contest of Champions is a very simplified fighter game that once again sees players recruiting (or in this case, collecting) a team of superheroes and villains to go up against big evils such as Thanos, Kang the Conqueror and more in an all-out rumble to stop them from taking over the galaxy. Players will come face-to-face with Marvel's roster of famous and not so well-known heroes and villains to build up their team.

While fighting games are generally a little tedious to play on smartphones or tablets due to the lack of a joystick and physical buttons,

Marvel Contest of Champions uses a simple mechanic with taps and swipes. For example, tapping is used for light attacks, swipes for medium and holding down a tap performs a heavy attack. Blocking is done by holding the left and right side of the screen and unleashing superpowers is just a mere tap of the power meter. The game also looks great and while characters have a more cartoonish and super deformed look to them, fans will definitely be able to distinguish who they are.

Guardians of the Galaxy: The Universal Weapon

Price: RM10 (A), US\$2.99 (iOS), US\$2.99 (WP8)

Platform: Android, iOS, Windows Phone 8

Developer: Marvel Games

The Guardians of the Galaxy movie was definitely one of the most surprisingly enjoyable movies last year and with its success it shot the relatively unknown team of Star-Lord, Rocket Raccoon, Groot, Drax the Destroyer and Gamora into the spotlight and superstardom. If you can't get enough of their funny antics, then this game invites you to jump into battle to help the Guardians recover the five pieces of the Universal Weapon before it falls in the hands of the villainous Ronan the Accuser.

The game is essentially a real-time gesture-based strategy game where you tap on the screen to direct where you want your heroes to go and drag towards an enemy for them to initiate attacks. There are now 25 characters from the Guardians of the Galaxy universe for players to unlock, upgrade and control and also over 60 levels for you to battle your way through. Each character has their very own special powers and will even team up to unleash combined attacks. 📺



WATCH

A New Chapter

As we progress through the year, we would soon be seeing the return of our favourite series. This month, we list some of the most attention capturing series that has kept us on edge throughout the years and have continued to make us impatient for the next season. Take note, however, as there might be spoilers from previous seasons if you have not yet already watched them By Nicolas See Tho

Defiance

Seasons: 2

Developers: Rockne S. O'Bannon, Kevin Murphy, Michael Taylor

There is a niche audience out there who are out looking for a specific type of sci-fi series, and with Defiance, they have found a home they can relate to. Defiance is set in the year 2047, whereby the Earth has been violently terraformed by rogue alien technology. The series follow Nolan and his adopted alien daughter, Irisa, in a frontier town called Defiance, as they struggle through this harsh new earth.

Spoiler Fun: For those who have already watched it, the next season would see an interesting interaction between the three main characters and also what happened after Nolan and Irisa were trapped in that alien cocoon. Exciting stuff isn't it.



Arrow

Seasons: 3

Developers: Greg Berlanti, Marc Guggenheim, Andrew Kreisberg

Arrow will be coming back later this year to bring back the continued adventures of Green Arrow and his continued quest to protect Starling City. The appeal of this show appeals not only to comic fans, but the younger generation who enjoy intense fight scenes as well as interesting characters, couple that with the life translation of these iconic DC characters, and you get a winning combination.

Spoiler Fun: The last scene at which Oliver was stabbed leaves a cliffhanger that has to be resolved quickly, as well as the plot hole which is the Hong Kong flashbacks in season two. The new season will also see the appearance of Atom if the tidbits from season two were true.



Agent Carter

Seasons: 1

Developers: Christopher Markus, Stephen McFeely

A new series for this year, Agent Carter is a new addition to the Marvel Cinematic Universe which shares the continuity of the films from the franchise. This series features Peggy Carter where she has to balance doing administrative work while working for Howard Stark which sees her as the foundation for the modern day S.H.I.E.L.D while living in the 1940s America.

Spoiler Fun: While technically nothing much to spoil here, but as it is under the Marvel umbrella, we can expect a lot of characters making an appearance in this series as well as new plot lines from this series which will affect future films from Marvel. Either way, this would be on our watch list for the year.



Agents of Shield

Seasons: 2

Developers: Joss Whedon

Comic fans are the ones that would be most excited here, as Marvel's Agents Of S.H.I.E.L.D. continues for a third season, for those who have not yet watched this amazing series, it is a series which shows the agents working behind the scenes from all the big blockbuster Marvel franchise movies, so be sure to catch up with the series before it comes back during the mid-year begins.

Spoiler Fun: The arrival of Quake, the Inhumans and tons more is just the icing of the cake. With so many plot gaps yet to be filled, anticipation is the least bit of our concern; the revelation is the deal breaker here.



The Blacklist

Seasons: 2

Developers: Jon Bokenkamp

Fans of these series can relate to the same atmosphere as that of 24. Instead of Jack Bauer, we get Elizabeth Keen, who portrays her role perfectly with a few unique twists. Not to mention the wonderful performance by James Spader as Red, gives us the perfect villain and anti-hero character that we can all enjoy.


Spoiler Fun: While season two is currently ongoing, the main draw of the show is the layers upon layers of deepening plotlines that keeps the audiences guessing. While it remains to be seen if Red is the father of Elizabeth, most of the fans would think so, let's see how season two pans out for the conclusive answer.

Game of Thrones

Season: 4

Developer: David Benioff, D. B. Weiss

The popular show that caught the world by storm makes its long awaited return this year for season 5, which begins on the 12 April. Fans of the books and series have much to be excited for as we now see the many characters go on their own path to find their way through this harsh world.

Spoiler Fun: The best part of the series is always looking at the reactions of your friends when their favourite character dies, and at this point, it is pretty close to a lottery for your character to survive. And don't worry; your favourite dwarf won't be killed off so soon. 



COLIN FIRTH

SAMUEL L. JACKSON

AND MICHAEL CAINE



FROM THE DIRECTOR OF X-MEN: FIRST CLASS

Kingsman

THE SECRET SERVICE

IN CINEMAS 19 FEBRUARY 2015

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KINGSMAN:THE SECRET SERVICE CONTEST

Terms & Conditions:

1. Contest open to all Malaysians except the employees of Online Dynamics (M) Sdn Bhd & Twentieth Century Fox Film (Malaysia) Sdn Bhd.
2. Only original entry form is accepted.
3. The judges decision is final and no correspondence will be entertained.

4. Prizes are not transferable or redeemable for cash.
5. Closing Date: **28th February 2015**
6. Send your entries to:
**Online Dynamics (M) Sdn Bhd/
KTSS Contest
A-5-07, Block A, Neo Damansara,
Bandar Damansara Perdana, Jalan PJU 8/1
47820 Petaling Jaya, Selangor Darul Ehsan.**

KINGSMAN: THE SECRET SERVICE CONTEST

1st Prize
Baseball Jacket
Key Chain
Bottle Opener
KTSS Movie Passes x 4 Double

2nd Prize
Gun USB
Key Chain
Bottle Opener
KTSS Movie Passes x 2 Double

3rd Prize
Earphones
KTSS Movie Passes x 2 Double



KINGSMAN: THE SECRET SERVICE CHIP CONTEST

Questions:

- 1) When is "KINGSMAN:THE SECRET SERVICE" showing in our local cinemas?

- 2) Name the Director of this mystery and suspense movie.

Name: _____

I/C No: _____

Address: _____

Tel/HP: _____

Email: _____

GAME REVIEW

I Only Ask Of The Sun, The Moon And The Stars

By Nazrin Zain



The battle system in Child of Light is reminiscent of old school Japanese RPG style turn-based system

Some of you may have heard of Child of Light. Some of you may have even played it already when it first came out for the consoles, before it was released for the PC a few months after its initial release. I heard that the game was quite a fan favourite, and it had great art, story and music to accompany the game's curious genre mix of platforming and RPG.

You start the game as Aurora, a princess from Austria, set in 1895. One night, she awoke from slumber to find herself mysteriously marooned in the land of Lemuria. After freeing the Lady of The Forest, she discovers that Lemuria's sun, moon and stars have all been stolen by Umbra, Queen of The Night, and the Queen of Light has disappeared. In order for Aurora to return to Austria, she must travel throughout the land of Lemuria, defeat Umbra, and set the celestial objects free from her clutches.

As mentioned before, Child of Light is

a platforming RPG game, both of which are integral mechanics in exploring the world of Lemuria. The exploration and platforming sections are filled with puzzles as well, so you'll need your wits in order to unlock sections of Lemuria. You will also be joined by a curious cast of characters, all with their own quirks and abilities as you tackle the other aspect of Child of Light: the battles.

As we mentioned before, Child of Light is also an RPG. In fact, the battle system in the game pays homage to JRPGs of old. It features an old-school Active Time Bar system which sets who gets to make the first move during battle. Using Igniculus, your tiny pyrefly companion, you can disrupt the enemy's progress bar, allowing you to land hits first. There is a limit as to how long you can delay your enemies, however, so it's generally a good idea to strategize when it's good to use them.

Aurora and her companions can also level up and gain brand new abilities.

These do diverge quite a bit, but you'll at least be able to see which abilities you do need, and which ones you can afford to only get later on.

The gameplay alone will keep you busy for hours upon hours, but the story and character development is what will keep you hooked. Throughout her journey, Aurora will meet a vast set of characters, all of whom are affected by the actions of Umbra. There are also several plot twists along the way that keep things interesting, making this a very easy game to recommend to anyone.

If you're not familiar with JRPGs, fret not as the game has various difficulty settings for newbies and veterans alike.



PLATFORMER, RPG

Child of Light

DEVELOPER Ubisoft

INFO www.childoflight.ubi.com

SYSTEM REQUIREMENTS

PLATFORM : PC, PlayStation 4, PlayStation 3, Vita, Wii U, Xbox One, Xbox 360

RATINGS

Gameplay	★★★★★
Graphics	★★★★★
Sound	★★★★★
Replayability	★★★★★

Intriguing characters, story, great gameplay

Grind for items and levels can be off-putting to some

PLAY

GAME REVIEW

SIMplify Your Life

By Jeremy Cheong



Sims now go through a variety of different moods. Each mood also opens up new interaction options with other Sims and objects



The game world is now smaller and more contained but this also helps with the performance of the game

By the time this review gets published, there'll probably be a few things about The Sims 4 that have improved due to incremental patches. Actually, by the time this review is published, EA would have already released their first "Stuff" pack, called Outdoor Retreat. But if you've been wondering if you should get The Sims 4 and then subsequently invest in its countless expansions and packs that is sure to come, the answer is a "Maybe". Why? Read on to find out.

The core gameplay of the fourth iteration of the game remains the same as before, where you create virtual avatars and guide them to riches or ruin. When the game was first released, there was quite a bit of uproar from the community as


many of the staple features were missing such as swimming pools, terrain tools, ghosts and babies. Some of them have already been added back into the game via incremental patches but some are still MIA. Then there's also the fact that the game is no longer set in an open-world, which means your Sims can't just run, cycle or drive to a lot or a friend's house. This also leads us to our next little problem and that would be loading screens. Even visiting a neighbour's house is met with a loading screen and it can get frustrating.

However, the move back to contained lots does have its plus points too as the game definitely plays much smoother than the previous game and loading is also much faster. So it is a pretty decent trade-off as the improved performance definitely is much more welcomed.

One of the biggest improvements of The Sims 4 is definitely its Create-A-Sim and Build tools where everything is much more simplified. Instead of sliders, a lot of tweaking can be done via pulling and pushing. Take for example when you create a Sim and you want his or her nose to be sharper or flatter, all you have to

do is grab the nose with your cursor and slowly pull or push it till it meets your requirements. Same goes for walls, no longer will you have to demolish entire sections just to get your wall in the right place. Another great thing is that now instead of building your own house or even Sims, you can just head online to the community gallery and download creations from your fellow Simmers for free.

Finally, there's also some new gameplay mechanics such as moods and multi-tasking and with this two mechanics alone, it feels like a totally new game. Sims are now affected by moods, much like us in real life, if they feel depressed, you can put on some inspirational classical music and their mood will change and then you can start painting or writing your book. Moods can also be used to your advantage as some actions will only be available when your Sim is in the right mood.

For those who have played and loved The Sims 3, moving to the new game will take a little getting used to. But after playing for a while and getting used to the new features, you will find that The Sims 4 has its own charms and that whatever was left out was for good reasons. 

LIFE SIMULATION

The Sims 4

DEVELOPER EA Maxis, The Sims Studio

INFO www.thesims.com/the-sims-4

SYSTEM REQUIREMENTS

PLATFORM: Windows

RATINGS

Gameplay Graphics Sound Replayability 

Better build mode tools, Improved Create-A-Sim features, Pretty art style, New moods and multitasking



No longer set in an open world, Missing some basic features (even after updates), Constant loadscreens

GAME REVIEW

Horrors Within Us

By Nicolas See Tho



The boss fights in this game offers gruesome looking monsters and a desperate setting to set the mood for a desperate battle



The levels in this game offers solemn and damp surroundings with little cheeriness

These days, horror games have evolved into shoot'em ups, with little emphasis on actually scaring players and more on blowing up zombies. The Evil Within provides the age old perspective of horror games, bringing back memories from games such as the first Resident Evil and Fatal Frame.

Developed by Shinji Mikami, the creator of the Resident Evil series, this game revolves around a detective named Sebastian and his two compatriots who become trapped in a warped reality of an apparition named

Ruvik which then creates all manner of horrors and monstrosities that become obstacles for Sebastian.

The game itself is masterfully created, with graphically gory scenes and death-traps, as well as enemies which only need to grab you once to kill you, creating a sense of urgency to survive

throughout the game. Weapons are readily available throughout the game however, finding ammunition for use is a different matter altogether. With the limited amount of ammo that can be found in each level, getting through the campaigns will often have players making use of their wits and problem solving skills when surrounded by numerous enemies. Most of the time, players will have to look for melee weapons like an axe lying around or certain traps that can be placed for the benefit of the player.

The Boss fights from this game is

also rather difficult and fast paced, as you would have to be able to make use of your surroundings as well as prepare adequate weapons beforehand in order to get through the stage boss. One would be wise to make use of a special weapon called the Agony Crossbow which allows players to change between different bolts which can create different effects.

After hours of playing The Evil Within, it feels like the game only provides an exhilarating first run,

and offers very little for a second run except for unlocking achievements. But considering the deep storyline and gameplay throughout the initial run, this was definitely an interesting entry for horror franchises, and this might see the return of the lost art of horror gaming.



THIRD-PERSON SHOOTER, HORROR

The Evil Within

DEVELOPER Bethesda Softworks

INFO theevilwithin.com

SYSTEM REQUIREMENTS

PLATFORM : PC, Playstation 4, Playstation 3, Xbox One, Xbox 360

RATINGS

Gameplay

Graphics

Sound

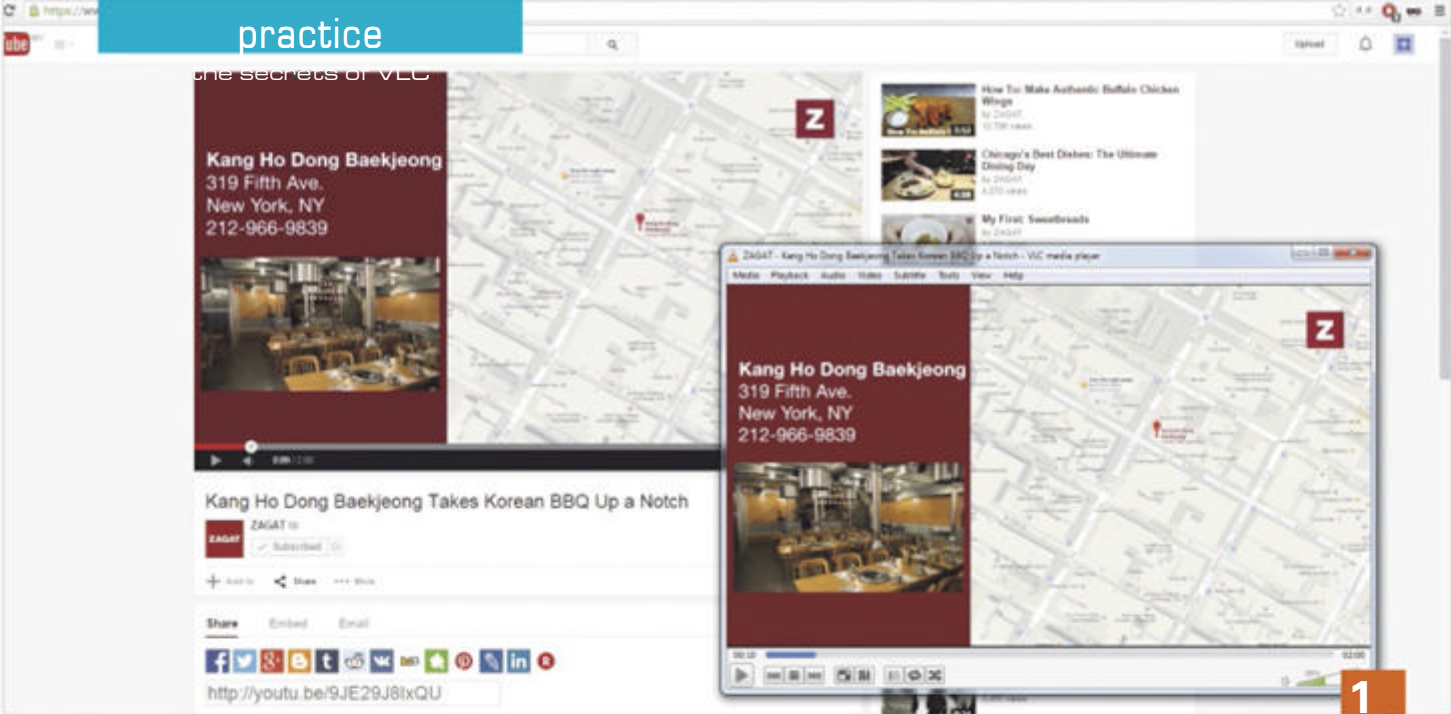
Replayability



Intense campaign options, Unique game mechanics



Linear gameplay, Little replay value



Play And Save YouTube Videos Using VLC

The popular VLC Media Player is one of the best tools for YouTube fans. Here's some tips on how you can optimise and manage your videos with just a few clicks By Markus Hermannsdorfer

The VLC Media Player is one of the most popular video-playing software as it brings with it support for a huge variety of video and audio codecs. Another one of the VLC's strengths is that it is also capable of playing back online streams in better quality than the actual stream players are capable of. Pale colours and lack of sharpness can be optimised with the integrated functions for video processing, while rattling or hollow sounds can be rectified with the VLC's pre-installed equaliser.

Not only that, it has numerous presets which are particularly helpful if you wish to save the audio track of a music video as an MP3 file. Video and audio files can also be managed as it comes with a media library functionality as well.

In this tutorial, we'll show you how you can not only watch videos from YouTube on VLC, but also how you can save and modify these files to suit your needs.

How To Get Started

1 Open YouTube Video in VLC Player

Go to YouTube, and pick any video that you'd like to watch and save. Under the share button, copy paste the URL that will be given to you, and open VLC. Here, open the "Media" menu and

click on the "Open Network Stream" option. Paste the link in the URL box that pops up, and your video will automatically stream on VLC.

2 Save The Video

Select "Tools > Codec Information" and right-click on the input row. Click on "Select all". You can now copy the displayed web address to the clipboard with [Ctrl]+[C]. Go to the web browser and copy the address into the input line. If the video is played in the browser, then right-click on the video and select "Save File". Specify a directory to save the video on to the hard disk.

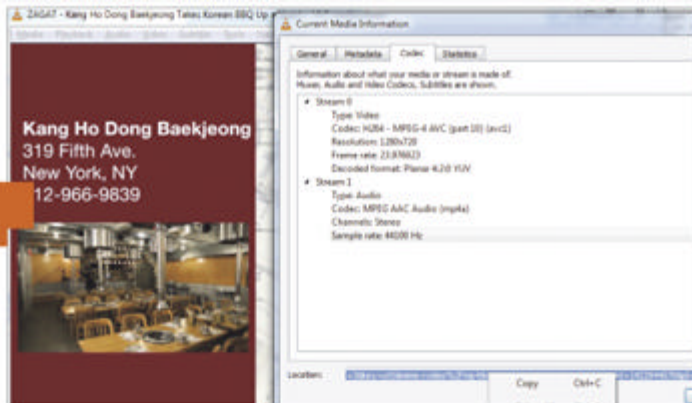
3 Optimise Sharpness and Colours

Now load your video in the VLC Player via "Media > Open File". Select "Tools > Effects and Filters" and go to the tab "Video effects". You can now sharpen the image under "Accuracy" and optimise the saturation. If required, you can also remove the black image borders in this dialogue.

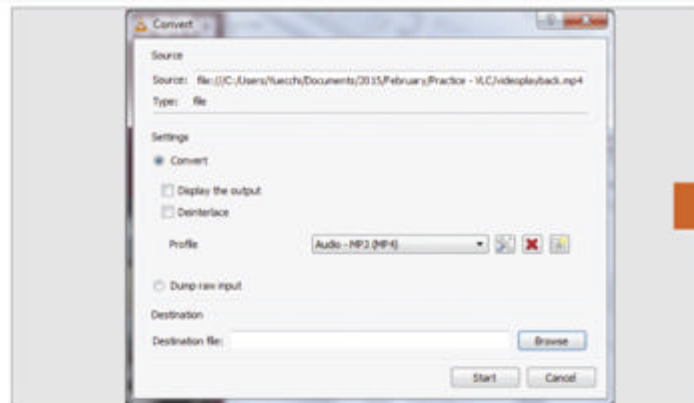
4 Improve The Sound

Go to the tab "Audio effects" in the dialogue "Adjustments and

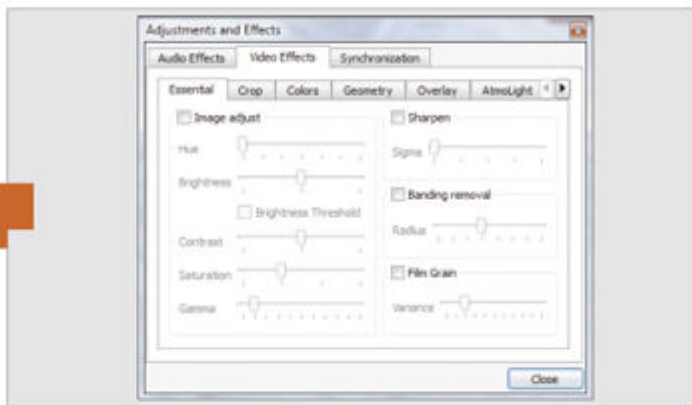
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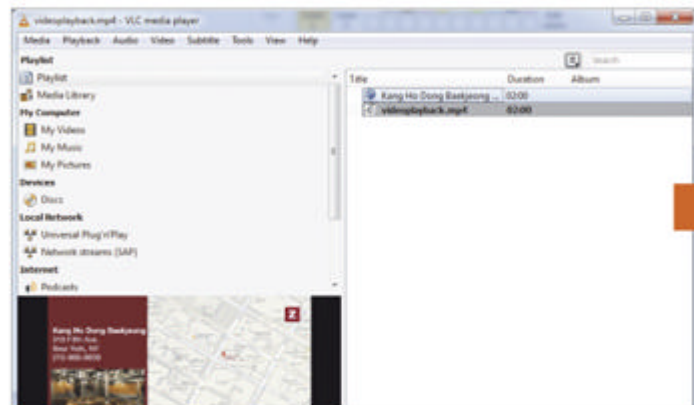
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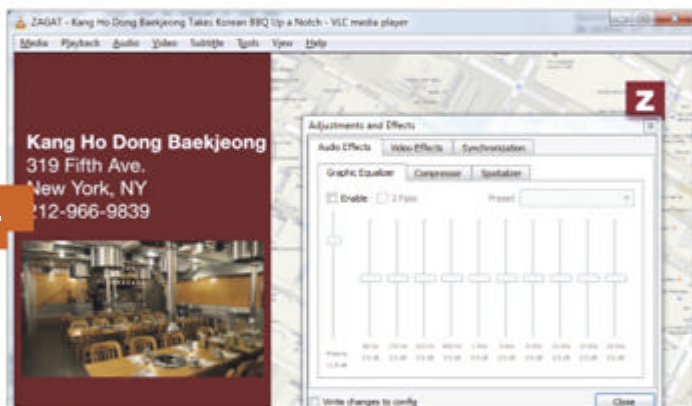
3



8



4



Effects". You will see an equaliser with various presets such as "Full bass and Treble". Select a suitable preset, enable "Make changes in the configuration" and "Close" the dialogue.

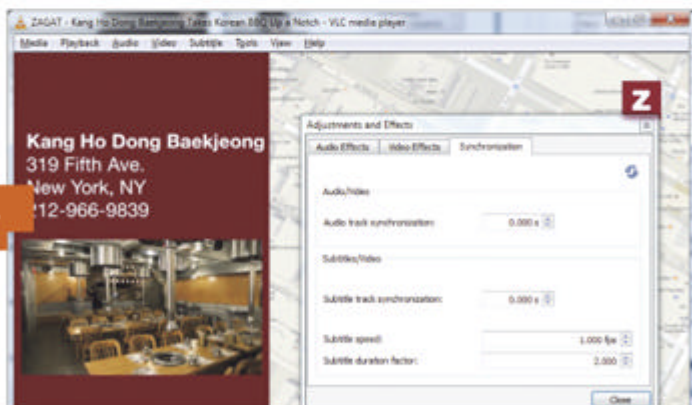
5 Synchronise Video and Sound

If the sound does not exactly match the lip movements, then you can rectify this during playback. If the sound comes too late, then keep pressing the [J] key till it matches the lip movements. If the sound is too early then press [K] instead. The audio track, in this case, is always moved in steps of 50 milliseconds forwards or backwards.

6 Convert Your Video for Smartphones

If you wish to transfer the video to a mobile device, then select "Media > Convert/Save" in the menu. Click on "Add" and open the video in the "File" tab. Then click on "Convert/Save". Select a suitable »Profile« such as "Video for Android HD" and specify a storage location. You can now convert the video by clicking on "Start".

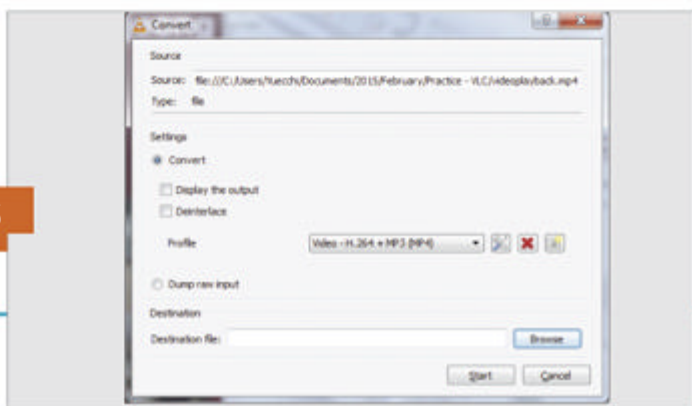
5



7 Save the Audio File

Music videos are very popular on YouTube. It is possible to isolate the sound track using the VLC Media Player and add the track to your music collection. To do this, repeat step 6 and select the setting "Audio - MP3" instead of a video profile.

6



8 Set Up a Media Library

Once you have a number of converted files in your PC, you should categorise them to make the videos and/or audio files easier to access. To do this, select "View > Playlist" in the menu and then click on "Media Library". Now right-click in the white area on the right and select "Add Folder". Go to the folder that has your collection of YouTube videos and music files. It will take a few seconds for the files to be available in the newly setup media library.



Landscapes with More Drama

If you have taken a really breathtaking landscape shot, but it suffers from bad lighting conditions, don't scrap it as you'll be able to fix it using Photoshop and Camera RAW

By Markus Hermannsdorfer

As you can see from the photos above, you will see that the shots are lacking a bit of drama, as the foreground is boring and the sky looks rather plain too. With Photoshop, you can add a mountain stream to replace the stagnant puddle of water, and even add in a dark, dramatic sky. You can also change the mood a bit using Photoshop's light and fog effects. For this tutorial, you can use a bunch of underwhelming looking holiday photos to make something that looks quite incredible.

RAW Mode Provides More Editing Options

A note before we begin this Practice session, it is preferable that you take your photos using the RAW format, as this will provide you with a better white balance range, and more. If you have photos in RAW, great! If not, you could still try to follow these tutorials as best as you can.

How To Get Started

1 Prepare Image in Camera Raw

Before you can modify the images, you should edit your photos first so that they are bright and sharp. Open your image in Camera Raw and select "Filter > Camera Raw" for JPEG images. Set the "Clarity" to at least +20, increase the dynamics a bit and move the depth slider to the right to brighten the details lying in the shadow.

Enable "Remove chromatic aberration" in the tab "Lens Corrections". It depends on the image whether more steps such as changing the white balance, are required.

2 Replace The Sky

In Photoshop, copy the background layer and cut out the sky using the magnetic Lasso tool. In your picture archive, look for photos with dramatic storm clouds. If you don't have any, you could always get one from a stock photo agency. Place the layer with the clouds behind the mountains. To make the manipulation realistic, add a layer mask to the mountain layer and soften the edges of the mountains with a soft brush (Colour: Black). Use the same method to make a few mountain peaks disappear behind the clouds.

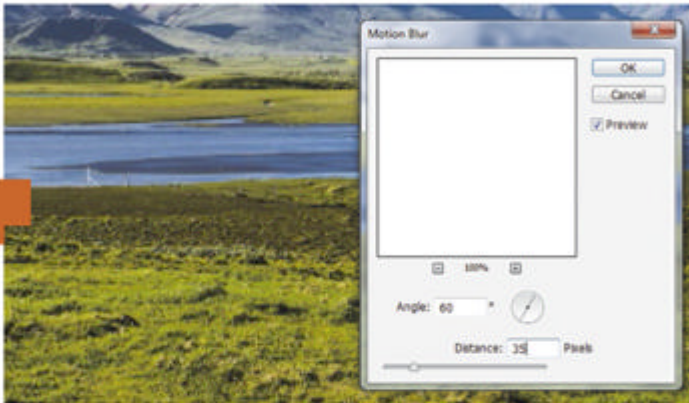
3 Letting The Sunrays Break Through

If required, add a new layer and with a soft brush (Colour: White) increase the bright spots on which the sunlight shines from behind the clouds. Change the transition mode of this layer to "Overlay" and set the opacity to 70 percent so that it does not look artificial. Paint a few points on another new layer using a hard brush. Now select "Filter > Motion Blur" and set the angle to 60 degrees. Subsequently try to make light rays using the "Distance" slider.

2



3



4



5



6



7



8



4 Replace and Adjust the Background

Just editing the foreground to make it have nicer colours still doesn't make it all that interesting, and here we will replace it completely with the same layer technique described at the beginning. The dark grass of the added photos is brightened using the Camera Raw filter so that it matches the original picture.

5 Play with The Surroundings

If the photo still looks a bit boring, you may enhance your landscape photo with other elements such as animals or a fence. Do not place these things at random in the photo, but deliberately guide the eyes of the viewer. In our sample image, the viewers' eyes will most likely follow the river and then look at the rest of the picture. With this in mind, we have added a branch of the river and a tree in the middle in order to give new focus to the eyes.


6 Harmonise The Colours

If you are satisfied with the result then you can merge the layers into one picture. If the colours do not harmonise perfectly, use the Camera Raw filter again and process the image with it. The "Split Tone" feature often works wonders with this.

7 Make The Colours Shine

Now click on the icon for a new settings layer and select "Color Lookup" to let the colours shine perfectly. Enable the "3DLUT-file" and select the filter "Crisp_Warm". Reduce the opacity as needed.

8 Sharpen The Image in LAB Mode

Merge the layers and then select "Image > Mode > Lab colour". Go to the tab "Channels" in the layers window and select "Brightness". The picture will now be displayed in black and white. Select "Filter > Unsharp Mask" and sharpen the picture without any loss. Go back to the RGB mode via "Image > Mode" and save your landscape photo. 

Tips & Tricks

FEBRUARY 2015

WINDOWS

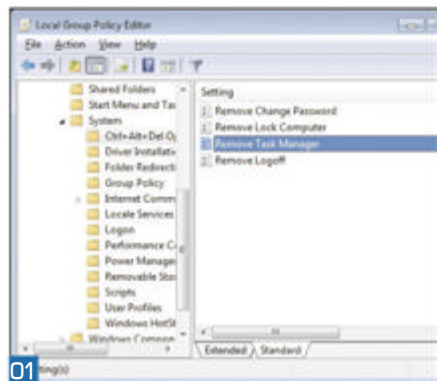
01

Windows 7

What to do when You Can't Access the Task Manager

Often times, if the Task Manager stops working, the common reason behind it would be due to the fact that a registry entry in the System folder is defective. To fix the problem, open the start menu, and type in "regedit" in the search bar. Open the path "HKEY_CURRENT_USER\Software\Microsoft\Windows\CurrentVersion\Policies\System" in the registry. Look for "Disable TaskMgr", double click it, and enter the value "0".

If the folder "System" is not available, the Task Manager function may have been deactivated via the Group Policies function. To access this, type "gpedit.msc" into the search bar and click on the gpedit icon that pops up. In the search. Navigate to "User Configuration > Administrative Template > System > Ctrl+Alt+Del Options". Here, you can double click on the "Remove Task Manager" and



Repair the Task manager via the Local Group Policy Editor in Registry Editor

set the option to Disable to make Task Manager appear again.

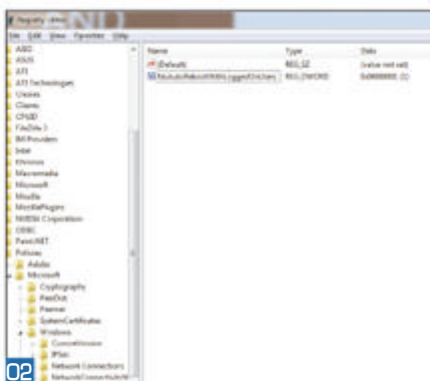
02

Windows 7

Disable Automatic Restart After Windows Update

One of the most annoying things about Windows Updates is that it will constantly ask for you to reboot your computer until you actually do it. The restart will more often than not take quite a while to do as Windows reconfigures your system files and such, and is usually done after you're done for the day.

You can disable this functionality with a few simple steps. Open the Registry Editor via the "regedit" function that you can type into the search bar from the Windows Start menu, and find the path "HKEY_LOCAL_



Turn off the restart after updating feature via the registry

MACHINE\SOFTWARE\Policies\Microsoft\Windows\WindowsUpdate\AU". Double click on the "NoAutoRebootWithLoggedOnUsers" option and enter the value "1" there.

If the folder "WindowsUpdate" does not exist, then right-click on the "Windows" folder and select "New > Key". Now give the folder the name "WindowsUpdate" and right-click on the new "WindowsUpdate" folder in order to create another subfolder via "New > Key". Name this folder as »AU« and open the context menu in the right side of the window by right-clicking on it.

Here, select "New > DWORD value (32-Bit)" and name this entry "NoAutoRebootWithLoggedOnUsers". Now open the newly created entry and enter "1" as the value.

03

Windows

Automatically Change Your Desktop Background via Bing

If you're familiar with Microsoft's Bing search engine, you will know that the



The Bing Desktop Tool allows you to change your desktop background based on the Bing search engine

background of its home page is often decorated with a random number of background at any given time. If so happens that you want to use these background images on your own desktop, there is a free software called Bing Desktop that allow you to do just that.

The main feature of this software is to integrate the Bing search engine to your desktop, but it also can change the background image of your desktop to match that of Bing's as well. To

activate this feature, you simply need to select the corresponding option during the installation. While setting up the tool, you must remember to disable the other options that are set by default, otherwise other Microsoft programs will be installed on your PC as well.

04 Windows Turn Your Computer Into A Dictation System

These days, the computer makes everyone's life that much easier thanks to the variety of functions that it serves the user. One feature that not many people seem to be aware of is the Dictation function built into the Windows operating system.

What you will need here is a microphone, or a pair of headphones with the microphone built in. To activate the program, simply open up the search box by pressing Winkey+R and typing in "soundrecorder". Once you have your microphone set up, you can press on the red record button and start recording. You can record up to 60 seconds of video for every file recorded, so take note of that.

If the recording does not start immediately then your microphone has not been set correctly. In this case open the sound settings in the Control Panel. Select your microphone as standard under the tab "Recording" and confirm your selection with "OK". Now nothing can stand in the way of your dictation.



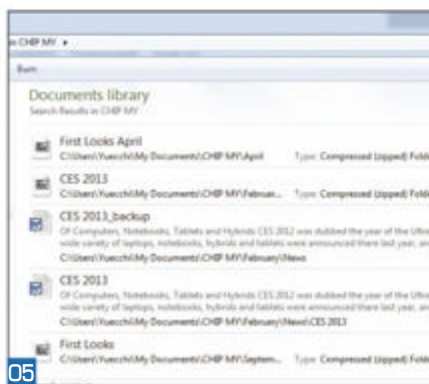
If you have a microphone connected to your computer, you can use the Sound Recorder feature to use it as a dictation device

05 Windows 7 Optimise Your File Search Using Operators

You can speed up the query with the help of operators so that your search for files does not take forever. Connect the two terms with "AND" if the file contains at least two keywords. If you wish to exclude a term then use the operator "NOT". If the file contains one or the other search term then connect the words with "OR". You have to write these words in uppercase so that Windows recognises your inputs as operators.

If you have saved all the relevant files in one folder then call the corresponding folder. Type the desired term in the folder. Windows 7 will display all the files in which the term occurs where the searched term will be highlighted in yellow. If nothing is found, then you can subsequently click the option "Select Computer" under "Search again in", widening the search field.

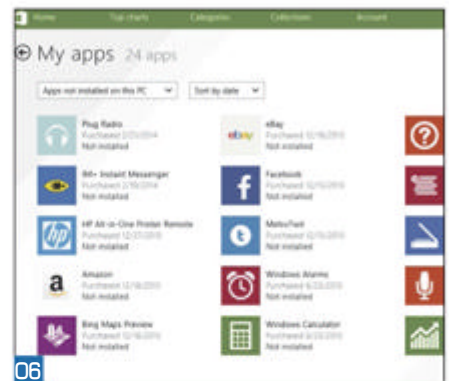
The other alternative is to go to Windows Explorer and search the entire hard disk. However, this may take up a lot of time under certain conditions. Even in Windows Explorer, you have to go back to the search field and type the corresponding term. If you have partitioned your hard disk, you should first search in the partition in which you expect the files most likely to be present. This will also take some time. If the files are not found on the C:\ drive then Windows will search according to file names in the first run. The area "Search again in" will subsequently appear under the



With Operators, you can easily specify your search query and easily find documents

search result. You can select the "File Contents" there. This last feature is particularly useful if you're looking for text documents, spreadsheets or PowerPoint slides.

06 Windows 8 Install and Use Purchased Apps on Different Computers



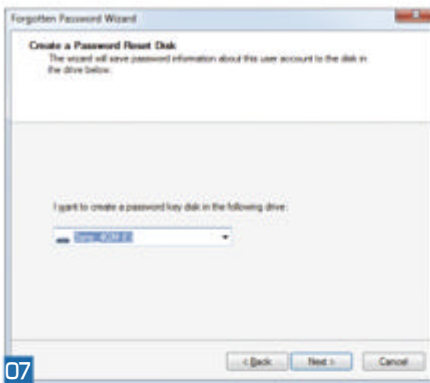
Microsoft allows users to install the apps they've bought in up to five computers at a time

You can install your purchased apps on as many as five computers under Windows 8. You simply have to pay once for the purchase. Open the Windows Store on the second computer. Click above in the menu bar on the "Account" category and log in with your Windows password. Now select the option "Your Apps". If the correct category is not seen, go to "Apps not installed on this PC" on the left. Select the desired application and then click on the "Install" button.

07 Windows Create A Disk To Reset Windows Password

While secure passwords are often required to secure personal digital data, forgetting these complex characters and numbers can sometimes lead to even more troublesome issues, like having to deal with customer service that can sometimes takes quite a while to get back to you. Having a password reset disk is always a good idea so you can always create a new password if you forgot the old one.

Place a blank CD into the drive or connect a USB stick to your computer.



07 Creating a password reset disk is a useful way to regain access to your computer in case you forget what your password is

In Windows 7, click on "Start" and go to the "Control Panel". Select the option "User Accounts and Parental Control" and then go to "User accounts". Click on the option "Create password reset disk" on the left.

In case of Windows 8, open the Charms Bar, click on the search icon and type the term "password". Subsequently click on the search result "Create password reset disk". Click on "Next" in the "Forgotten Password Wizard" and select the medium which you wish to use as the password reset disk. Enter your current password. Your disk of choice will now be a password reset drive. Keep it in a secure location.

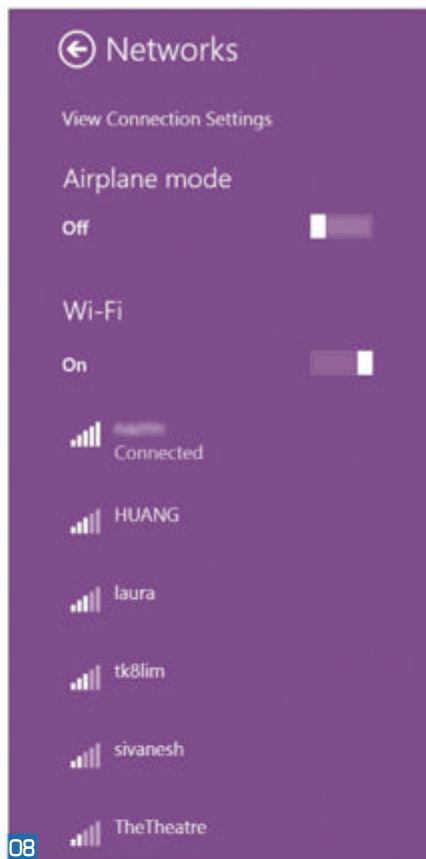
Should you forget the password anytime then just type any random word during logging in. The comment "Reset Password" will now appear under the input field. Click on the same to open the "Forgotten Password Wizard". Insert your password reset disk. You can now set a new password and a new password hint. Subsequently log in to Windows again with your new password.

08

Windows

What To Do When Available WLAN Networks are Not Displayed

In case there are WLAN points that don't appear in your Available Wireless Networks window, there are several solutions that can help you solve this issue. First of all, check that your Wireless LAN connectivity is activated. Additionally, ensure that you have not turned on Airplane Mode by accident



08 If your Wi-Fi isn't listing any access points, check if your Wi-Fi function isn't turned off, or Flight Mode is turned on

as this will disable your Wireless LAN modem by default.

Another very common problem that may occur is that you're simply too far away from the WiFi router. You may want to also confirm that the access point is active and allows connecting to it. It could also be that the access point is connected to too many users and is not able to take in any more connections. In case that you may still have problems with it, you will want to contact the administrator for more support.

Ensure that your Internet connection is neither restricted by a firewall nor is blocked. It could be that the driver of the WLAN card is not the latest version. Connect a LAN cable and download the latest version of the WLAN driver. With this, at least, you can rule out a defect network card as one of the reasons that you can't connect.

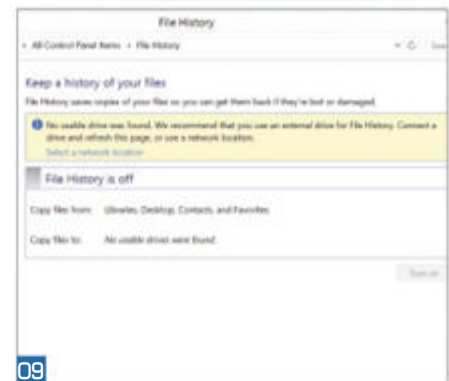
If you have access to the router, you will want to reset the router and see if that fixes things, as that could

also be a major reason why internet connectivity is a problem.

09

Windows 8.1

Create a Perfect Copy of Your System Drive



09 Creating a working backup for your system drive is important as it will save you a lot of time from having to reinstall the operating system in case something goes wrong

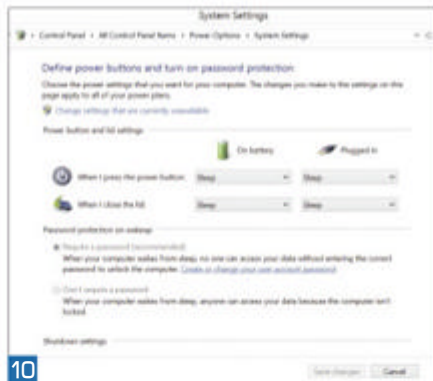
Complete system maps of a perfectly functioning configuration are important in case the operating system stops working in future. Windows can internally create system maps but this function is hidden in version 8.1. Open Control Panel, and then select the option "Save backup copies of files with the file version history" in the "System and Security" area. Then using the "System map backup" on the bottom left, open an assistant that will guide you through the further steps.

Select the target medium in the next step. You can save the map on an external hard disk, a DVD or in the network. Due to the data volume, we recommend saving it on a DVD if you want to save multiple copies of the backup.

Now select the data to be backed up. By default, the system hard disk and the PQSERVICE partition are selected which is responsible for the recovery. Below the selection, is an overview of the required memory space. Your settings will be displayed again if you click on "Next". When everything is set, click on "Start Backup".

10

Windows 8.1 Terminate Stand-By Mode Password Requirement



10

Turning off the password on wake up function isn't recommended, but will save you a lot of time from having to input the password every time

If you have set a password to your computer, but do not want to have to enter it every time you wake your PC up from standby mode, we have a solution for you. In this case, the password will only be asked when you're starting up your PC and sleep mode.

Open up the Power Options menu and click on the "Require a Password on Wake Up" option on the left. From there, click on the "Don't Require a Password" option, and the password entry requirement will be turned off.

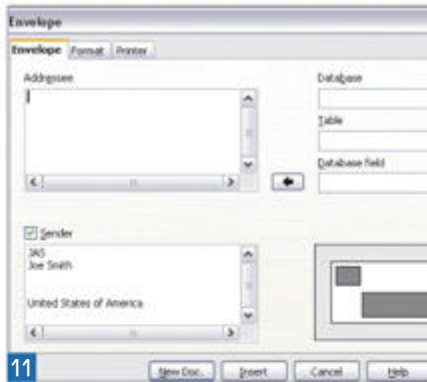
You may not be able to select all settings in the menu. In this case, click on the link "Some settings are not available at present", and set the "Require a Password on Wake Up" function to be available.

OFFICE

11

Open Office Print Envelopes and Add Addresses Using The Writer

Open Office offers a practical function of labelling envelopes irrespective of the page formats of the remaining pages. Addresses are automatically inserted. Start the Open Office Writer and select "Insert > Envelope". In the "Envelope" tab, enter the information of the addressee and your sender address. This information can also be written manually or taken from an integrated database. You can specify the format of your envelope in the



11

Setting the address print area for an envelope is quite easy with Open Office

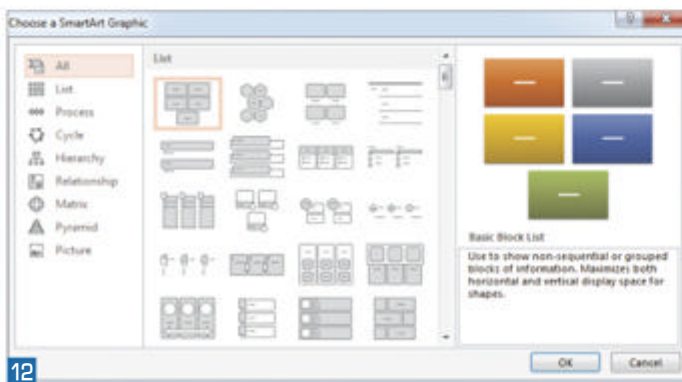
"Size" area of the "Format" tab. Furthermore you can set the font type, font size and formatting for the areas "Recipient" and "Sender".

Under "Printer", you can inform the Writer, in what direction do you want to place the envelopes in the printer. By clicking on "Insert", an address page shall be prefixed to your text document. You will be able to print your envelope with this page. The addresses are fixed at the specified positions. This way, they remain at the same position even when you change the address.

12

PowerPoint Extend and Individualise SmartArt Graphics as Needed

SmartArt graphics can be randomly extended and customised in PowerPoint. To do this, first insert a random SmartArt graphic in your presentation via "Insert > SmartArt". You have a choice of lists, pyramids, images and much more. Switch to the older program versions for the tab



12

SmartArt Graphics in Microsoft PowerPoint can be modified to suit your whims and fancy

"Draft". If you're using PowerPoint 2013, the software will do this automatically. Here you have the option to individually customise SmartArt graphics. For example, you have a choice between different layouts, a new shape or inserting a text area. In the »Format« tab, you have the option of individually designing the graphics. You have the option to customise the shape of the graphics here, change the font colour or even add a text effect.

HARDWARE

13

Laptop What To Do When Your Power Button Stops Working

More often than not, when a physical portion of your computer or notebook starts to die, the first thing most people would think of doing is to send it to the service centre. If you feel adventurous, and think you're good with a bit of handywork, we have some tips that might help you out.

Now before you begin, we recommend that you back up all your data into an external drive first, just to be safe. Switch off your laptop and unscrew the device. In some models, you can simply remove the cover above the keyboard. Check whether the area around the Power button is dirty and clean it if required. In some cases, you may notice a defect. If this is the case, leave the repairs to a professional. In a lot of cases, the problem could be due to a loose contact.

The other alternative is a trick as long as the computer is running: Call the BIOS and look for a function with

which you can start the laptop via a defined key on the keyboard. If you cannot find it then look for "Power State after power loss". A desktop computer can be started via this option if the power is switched on. This can also



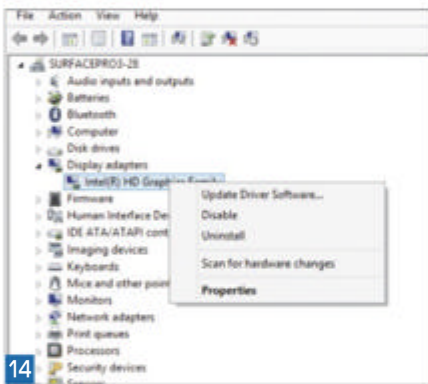
13

If you cannot start the laptop with the Power button then a BIOS setting will help in this matter

work for a notebook, assuming it has this feature.

14

Graphics Card Disable the Onboard GPU Installed In The Laptop



14

Disabling the onboard graphics can be done via the Device Manager menu

If Windows is using the wrong graphics card then you can disable the on-board graphics card without any problems and use the stronger one in the hardware. In most of the cases, Windows activates the dedicated hardware automatically as it detects that the on-board graphics card is not good enough, for example, while starting a game.

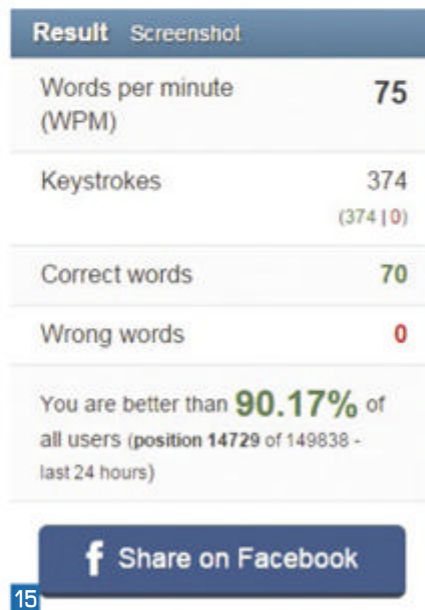
If you wish to always use the installed card, then you have to manually disable the onboard card. To do this, press [Windows] and [R] simultaneously to open the "Run" command. Type the command "devmgmt.msc" here and click on "OK" to start up Device manager. In the new window, open the category "Graphics Card" and right-click on your onboard graphics card. Here, select the option

"Disable" and confirm your choice with "OK".

15

Keyboard One Reliable Way To Calculate Your Typing Speed

How many characters can you type? Calculate your typing speed and find out how fast you are with ten fingers or via the "hunt and peck" system. You can run a speed test on the website 10fastfingers.com. You have to type the first displayed word when the test starts, and the speed test will go on for a minute. Type as many words as possible in this time. Subsequently you will be shown the number of words per minute and also the key strokes. You can share the results online on Facebook or create a screenshot of your score.



15

10fastfingers.com is one of the best ways to test your typing speed

16

USB Drive Format Your USB Stick To Make It Work For Both Windows and Mac

To be able to use a portable data



16

If you're on Windows and you want your flash drive to be able to be read on both Windows and Mac OS, format it to FAT32

carrier on Mac as well on Windows PC, you have to format it in such a way that both systems can read and write on the device.

First, connect the USB drive to your Windows computer. In the Start menu, click on "Computer". Here you should see the USB Drive in the "Devices with removable storage". Right-click on it and select "Format" in the context menu. In the formatting window, select "Fat32" as the file system. Give a name to your USB stick under "Volume name". If required, enable the check mark for "Quick Format" which makes the process go faster but not thorough. Click on "Start" and confirm the security question with "OK".

If you wish to format the USB drive on an Apple computer, then first connect the USB stick to it. Go to the program folder and then to the subfolder "Service programs". Open the "Hard disk service program". Here you will see all the connected drives - even the one to be formatted. Select it and ensure that it is really the correct USB drive because all the data will be wiped off during formatting. Now click on "Partition". You can choose the desired number of partitions under "Volume scheme" - which should usually just be one partition. Click on "Options" and select the partition scheme "Master Boot Record". Click on "OK". You can give a name for

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the data carrier in the menu "Volume Information". In the Drop-Down menu under the point "Format", select "MS-DOS File system (FAT)". Click on "Apply" and confirm the security question by clicking on "Partition". You must now wait till the USB drive has been formatted.

Mobile

MOBILE

17

iOS

Change the Country Settings in Your App Store



You will need a US address for switching to the American App Store. The website unitedstateszipcodes.org will help you with it

If an app is not available in the Malaysian App Store, then changing the country setting can be worthwhile as the app may be available in other stores. Open the App Store on the iPhone or iPad and select "Highlights". Scroll to the very bottom and tap on your "Apple ID". You will come to your payment details via "Show Apple ID" and also to the "Country/Region" which you can change.

You cannot access the US App Store if you have a Malaysian Apple ID as Apple as it requires an American credit card to access. To solve this problem, open the App Store again and register anew. Apart from a new Apple ID, you also have to enter "City", "State" and "Zip Code" as this information is checked. You can easily find the appropriate data on unitedstateszipcodes.org. It is recommended that you choose "Delaware" as the state as there are no taxes on online purchases in that state. The best option is to pay with prepaid credit codes for the American App Store which you can buy at

a reasonable price online as well. Redeem the code in iTunes and you can then choose from a wide range of offers from the American store. You can then download your favourite apps and other things like movies and clips from TV shows from there.

18

Android

Run Your Apps in Chrome on Windows

If you want to use your Android apps in the Chrome browser, on your computer, there is a way or you to

do so with very few issues. Simply download the emulator ARChon which is approx. 100 MB in size, from github.com. To get this tool working, you will need the latest version of the Chrome

browser. Click on the top right in the browser on the Menu button and select the "Extensions" under the category "More Tools".

Activate "Developer Mode" and click on the "Load the unpacked extensions" option. Unzip the ARChon ZIP file, open Chrome and select the unzipped folder there. After this, the emulator will be installed in Chrome. The error messages that pop up is normal and can simply be ignored.

You can install apps in the same



18

ARChon Runtime allows you to run Android APKs on the Google Chrome browser

manner as the emulator. Download the desired app, unzip the file and install it via Chrome in the developer mode. You will see the option "Start" below the app in the overview of the extensions. If the desired app is not available for download or if you are looking for an inexpensive app then a small detour is needed. Load the app on your Android smartphone and install the Chrome APK Manager. You can unzip the Android app via the function »Generate Chrome APK« and then transfer it to your computer.

SOCIAL NETWORKS

19

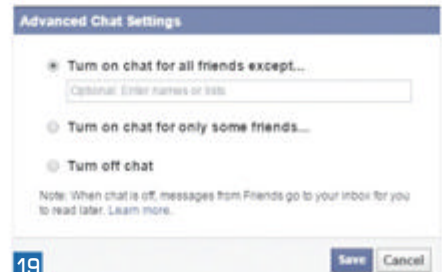
Facebook

How To Hide Your Online Status

One of the most annoying things about being on Facebook now is that people can see your online status and disturb your browsing session. There is a way to turn this feature off, of course, and we'll show you how.

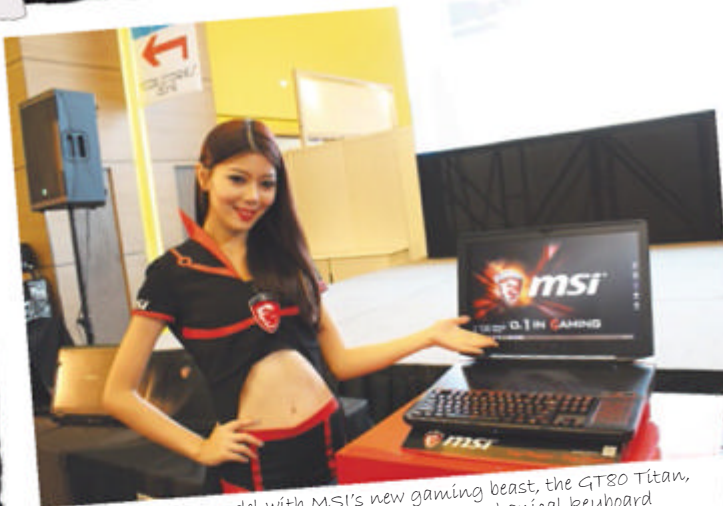
Log on to Facebook and click on the gearwheel icon in the left chat window. Select the lowest menu option "Disable Chat". You will not see your friends if they are online. This will be the case while using Facebook on the computer (green dot) as well as on the phone (Phone icon).

The other option is to display or block the online status for only certain friends. The settings can also be done by clicking on the gearwheel icon. Click the "Advanced Settings" option. Here, specify the names of friends who may see your status or those to whom the status should not be displayed. You can also add more names to the list later. Click on "Save" and your settings will become active.



19

If you want more privacy on Facebook, you can turn off Chat completely, or just turn it on for a select number of friends



9/01/2015 - A model with MSI's new gaming beast, the GT80 Titan, which is the first gaming laptop to feature a mechanical keyboard



8/01/2015 - Before the launch of the new Samsung GALAXY A series, the stage is filled with urbanised designs to highlight their urban feel



20/01/2015 - Models and the opening of Huawei's first exclusive service centre in KL



8/01/2015 - Samsung GALAXY A Team performing during the launch of the new Samsung GALAXY A5 and A3



20/01/2015 - Lion dancers blessing the opening of Huawei's first exclusive service centre in KL



14/01/2015 - Regardless of the position, the BenQ W1080ST+ is capable of projecting from many angles, and at a distance of 1.5 metres away



14/01/2015 - Dato' Yasmin Mahmood, CEO of MDEC and Ahmad Faezal, the Executive Director of MERCY Malaysia with the mock cheque of donations made to the Bersamamu and TogetherWithU campaign



14/01/2015 - Jinny Boy of JinnyBoyTV telling the media about his experience with the new BenQ projectors



14/01/2015 - The BenQ W1080ST+ showing off its prowess at image projection even at really tight angles



20/01/2015 - A lion dancer offering mandarin oranges to passer-bys at the opening of Huawei's exclusive service centre in KL



22/01/2015 - Digi employees posing for a photoshoot after the launch of their new rebranding campaign

Next Issue



The Dangers Of Free Movies

Previously, the only danger one had to be wary of when it came to downloading movies and TV series was that it came with some kind of malware or virus. These days however, as these websites are starting to become more and more accessible, the authorities have started to raid the individuals who are maintaining these pages, and even the people who are downloading from them as well.

In this article, we take a look at some of these portals that are dangerous for you to visit, and some that are legitimate and still offer free videos that you can watch.



Transistors: The Foundation Of Modern Technology

At the moment, there are currently more transistors on earth than there are stars in our galaxy. If it weren't for advancements to create transistors that are smaller and more powerful with each passing year, the technology we have today wouldn't have been possible. In this article, we take a look at the history of transistors, and the minds that created them to be what they are today.



Building Your Perfect Computer

CHIP has been reviewing hardware components for the longest time now, but we've seldom made a tutorial on how to build your own PC from scratch. We're fixing that oversight, as we will show you the best and easiest way to not only pick out the parts that you need, but also how to build your own desktop computer from scratch.

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